DOCUMENT RESUME

ED 183 652 UD 020 263

AUTHOR Young, Ruth C.
TITLE New York State Employment Trends, 1880 to 1977. Cornell Rural Sociology Bulletin Series, No. 95.
INSTITUTION Cornell Univ., Ithaca, N.Y. Dept. of Psychology.
PUB DATE Feb 79
NOTE 132p.

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Agriculture; Blacks; Differences; Employment Patterns; *Employment Trends; Females; *Labor Market; Manpower Needs; Manufacturing; Regional Characteristics
IDENTIFIERS *New York

ABSTRACT

From 1880 to 1977, the overall picture of employment in New York State has been one of reasonable stability. Within this general stability there have been great changes in sectors of employment. Agricultural employment has declined steadily and dramatically. The level of manufacturing employment has increased from 1880 to 1910 and has remained relatively steady in recent years. There have also been marked changes in the composition of the work force. From 1900 to 1970 the proportion of females employed increased by over 10%. One of the more marked differences was in the the proportion of black people employed. Employment among blacks reached its peak in 1910 when 62.6% were employed, while in 1970 only 35.3% were employed. Employment trends in upstate New York are shown to be more like those of the rest of the nation than like New York City and surrounding counties. (Author/RLV)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

FEB 2 6 1980

ED183652

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Ruth C. Young
Cornell University
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CORNELL

RURAL SOCIOLOGY

BULLETIN SERIES

NEW YORK STATE EMPLOYMENT TRENDS, 1880 TO 1977

by

Ruth C. Young

February 1979 Bulletin No. 95

UD020263

Department of Rural Sociology
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

FOREWORD

The funding for this study was provided by Hatch Project #413, Institutional Location in New York State, for the Cornell Agricultural Experiment Station.

I would like to thank the following for reading and commenting on a draft although I, and I alone, am responsible for the content: Ward Bauder, Richard Boisvert, Walter Coward, Paul Eberts, Eugene Erickson, Chris Hermann, James Preston, and Frank Young. I would also like to thank Gwendolyn Barrett for the typing, Chris Haller for the computer graphs, and Lucy Cunnings for editing. I would also like to thank Victoria Sturtevant for gathering the data for the county information pages. I thank Phyllis Hurlbutt for checking each and every table.

NEW YORK STATE EMPLOYMENT TRENDS, 1880 TO 1977

There is widespread concern about the economy of New York State in general and of New York City especially. We see this expressed in many ways in the press and in the formation of commissions and study groups. This concern comes to the fore repeatedly in the form of news of corporate headquarters leaving New York City, jobs in certain sectors of manufacturing decreasing dramatically, garment manufacturers moving South, population of the state decreasing for the first time, New York City's seemingly precarious financial plight, and questions about the extent to which a few people in truly productive jobs support many of us who work in various types of "service" jobs. How badly off are we? Why does New York have these problems? The first question to answer is how badly off we are, and the second is in reality how new is our present situation. Have there been sudden and dramatic changes in the economic structure of New York State that must be met, or does the present have roots in the past? The first task in a series of studies appraising the New York State employment situation is to look at long-term trends in employment and try to see how new recent changes really are.

The Level of Employment Since 1880

Since 1880 the nature of farming and manufacturing has changed dramatically, and with these changes production jobs also have changed. The composition of the work force is different. People live longer, but more of the elderly have pensions. People attend school longer, and child labor has disappeared both on and off the farm. In spite of all the adjustments that New York has had to make because of these changes, the fact is that decade by decade since 1880 about the same proportion of the total population has been employed and has been supporting the rest. Table 1 shows that despite wars, depressions, and

Table 1

New York State Population as a Percent of Total United States Population and Percent of Population Employed for New York State and/or the United States, 1880 to 1977

Year	N.Y. Pop. as % of U.S. Pop.	Percent of NYS Population Employed	Percent of U.S. Population Employed
1880	10.1	37.1	34.7
1890	9.5	40.6	37.2
1900	9.6	41.2	38.1
1910	9.9	43.9	41.5
1920	9.8	43.4	39.4
1930	10.3	43.9	39.8
1940	10.2	36.9	35.9
1950	9.8	40.1	37.2
1960	9.4	39.3	36.0
1970	9.0	39.5	37.8
1974	8.5		
1975	8.5	-	-
1976	8.4		
1977	8.3	-	-

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population.

change in the nature of work, the proportion of the population that is employed have hovered around 40 percent--a percent or two higher or lower here or there.

In each decade from 1880 to 1970 the proportion of New Yorkers employed has been slightly higher than the proportion of the population employed in the United States as a whole. New York has always done well and has continued to do so up to 1970, save for the drop due to the depression of the '30s reflected in the 1940 Census data.

From 1880 to 1970, despite westward migration, movement of population back and forth from the south, and continual arrival of new residents in New York City, the state has had about 10 percent of the nation's population. It lost one percentage point from 1940 to 1970, going down to nine percent, and it appears to be losing another percent, perhaps, in the present decade. In 1977 New York had 8.3 percent of the United States population.

This picture of employment and of population is a relatively stable one for the state as a whole. Much of the public concern, however, has been for New York City. How does it compare? In Table 2 we see that since 1940 New York City has consistently had a slightly higher level of employment than the wider downstate area, and the downstate area a slightly higher level than upstate. New York City, then, has had a slightly smaller burden of dependent persons than the rest of the state; that is, a slightly smaller proportion of persons not employed and therefore supported by the efforts of others. Of course, this figure masks differences existing in proportions of unemployed who live on pensions, who are independently wealthy, or who live on some kind of public welfare. New York State, and especially New York City, may have a more difficult burden of support. But even pensioners and wealthy persons are partially supported by the rest of us through public contributions to pensions and differential taxation.

Table 2

Percent of Population Employed for New York City, Downstate and Upstate, 1940 to 1970

Year	Percent of Population Employed		
	New York City	Downstate*	Upstate*
1940	38.1	37.7	35.4
1950	41.7	41.2	38.6
1960	42.7	41.1	36.9
1970	40.8	40.1	36.9

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry 1940 to 1970. U.S. Census of Population 1940-1970 (Table 2. Pop. of N.Y.S. Counties 1900-1975.)

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

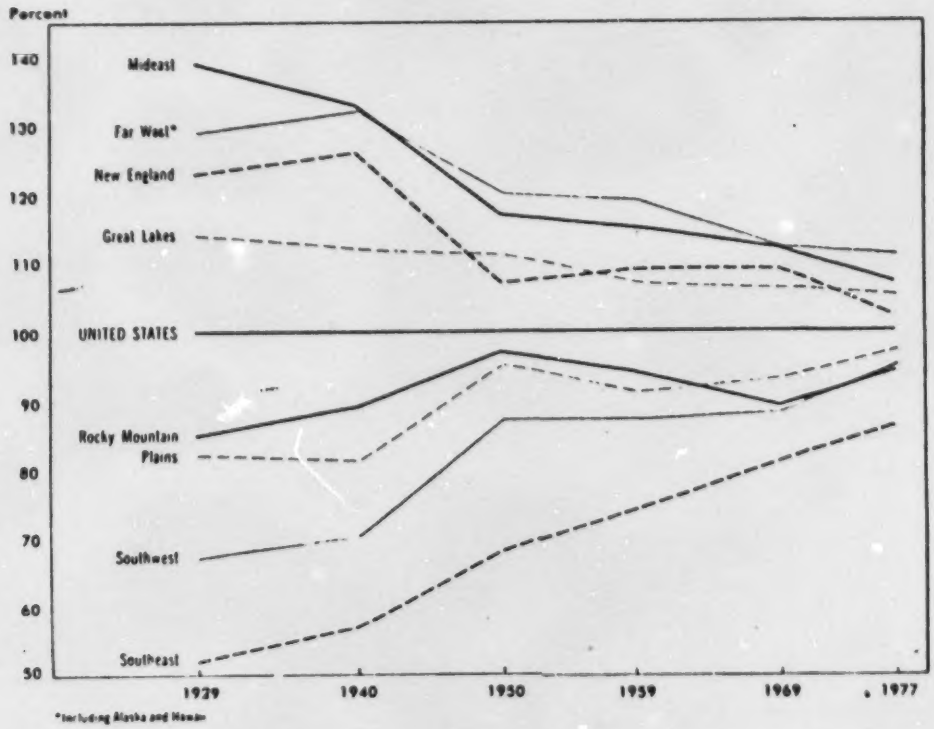
There has been one dramatic change in the relation of New York State to the rest of the United States. In 1929 New York had about ten percent of the United States' population, but it had over sixteen percent of all personal income. (See Table 3.) Personal income is "the current income received by persons from all sources met of contributions for social insurance."[1] In 1977 New York had a little over eight percent of the U.S. population but had a little less than nine percent of the nation's personal income. This constitutes a relative decline of New York State personal income since 1929, but since New York's share of personal income is still slightly higher than its share of population, this relative decline in income cannot readily be interpreted as an economic disaster. New York should be able to adapt to having only its own share of all of the personal income available in the nation, to being only as well off as the rest of a fairly rich country.

Table 3 also shows per capita personal income (adjusted for the cost of living) for New York and for the United States as a whole over the same period. Personal income per capita has been increasing more rapidly for the United States as a whole than for New York, though both have slowed down in recent years. In fact, in 1974 and 1975 the country as a whole suffered a decline. In 1977 both began to recover. Nonetheless, the main fact to be noted is that in every year including 1977 per capita income in New York was larger than for the United States as a whole.

Figure 1 shows the shares of personal income of different parts of the country for the same period, from 1929 to 1977. It is evident that the shares held by different sections of the country were very unequal in 1929 and since then have, generally speaking, been converging toward equality, and very rapidly so since the World War II period. New York has held its own in personal income per capita in a period when other sections of the country have been catching up. This catching up by other sections of the country has

Fig. 1

Per Capita Income as a Percent of the National Average BEA Regions, Selected Years



Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, Vol. 58, No. 10 (October 1978):27.

Table 3

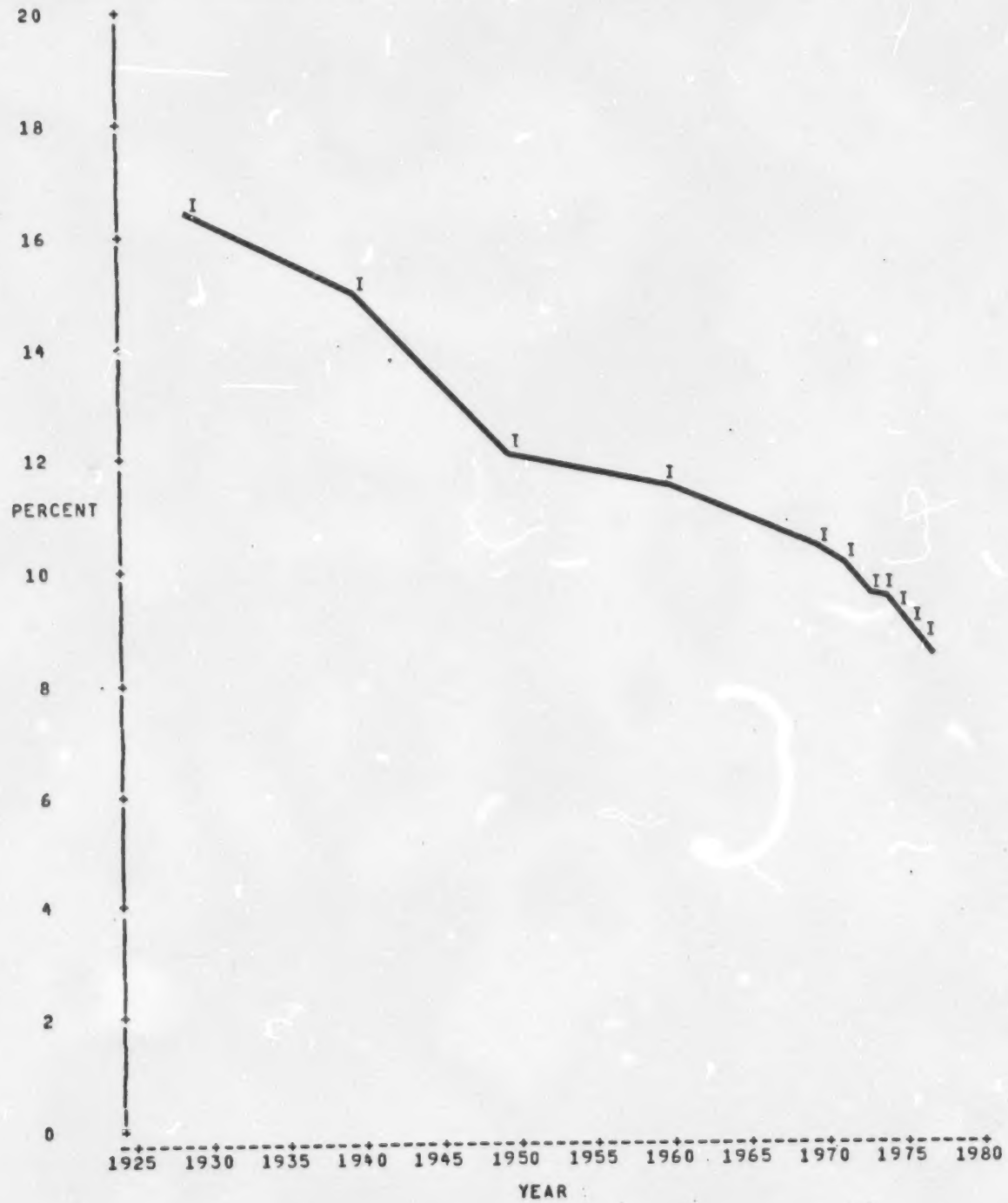
New York State Total Personal Income
as a Percent of United States
Personal Income
and Personal Income Per Capita

Year	N.Y. Personal Income as Percent of U.S. Personal Income	Personal Income Per Capita Adjusted for the Cost of Living	
		New York	United States
1929	16.52	$2,259	$1,370
1940	15.01	2,071	1,417
1950	12.31	2,598	2,075
1960	11.58	3,091	2,505
1970	10.71	3,562	3,410
1972	10.16	4,245	3,574
1973	9.69	4,298	3,787
1974	9.58	4,228	3,679
1975	9.43	4,096	3,619
1976	9.10	4,065	3,755
1977	8.89	4,173	3,886

Source: U.S. Department of Commerce, Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970, Part 2 and Survey of Current Business, August 1978, Vol. 58, No. 8, "Personal Incomes by States and Regions, 1972 to 1977; and U.S. Department of Commerce, Statistical Abstract of the United States, various years.

Graph for Table 3

NEW YORK STATE PERSONAL INCOME AS A PERCENT OF U.S. PERSONAL INCOME



involved many adjustments in the economy of New York State. Its maintenance of personal income per capita is evidence of a degree of success in making these adjustments.

Within New York State, in 1975 New York County had a per capita personal income of $9869 (current dollars), Westchester $9106, and Nassau $8841. The next highest county was Monroe with $7009, and no other county reached $7000. Therefore, while New York City does indeed have higher taxes, it also enjoys higher income than the rest of the state with which to pay those taxes.

The first important fact established, then, is that from 1880 to 1970--almost a century--New York State employment has held reasonably steady, as has New York population, and that personal income before taxes, though declining relative to the nation as a whole, has continued until 1977 to stay proportionally slightly ahead of population and to remain consistently higher than the nation as a whole. In succeeding sections, we will see that this stability and strength was maintained in the face of vast internal changes in the economy and the work force, and shows that New York has successfully adjusted to change over a long period of time.

Changes in Types of Jobs

Within this picture of general stability in the level of employment, there have been widespread changes in the nature of employment and in types of jobs available. The proportion of employment in agricultural jobs has declined dramatically. In 1900, agricultural employment comprised only 1.3 percent. (See Table 4.) This is, of course, similar to trends across the nation.

In 1880, 16.5 percent of employed persons working in manufacturing jobs in the nation lived in New York, and in 1970, only 8.7 percent or a little over half the former proportion (see Table 5). The proportion was continuing

Table 4

Percent of All New York State Employed Persons Employed in Agriculture, Forestry and Fisheries, 1900 to 1970

Year	Percent Employed in Agriculture, etc.
1900	12.5
1910	9.5
1920	7.0
1930	4.9
1940	4.4
1950	3.0
1960	1.9
1970	1.3

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Population.

Graph for Table 4

PERCENT EMPLOYED IN AGRICULTURE, ETC. IN NEW YORK STATE

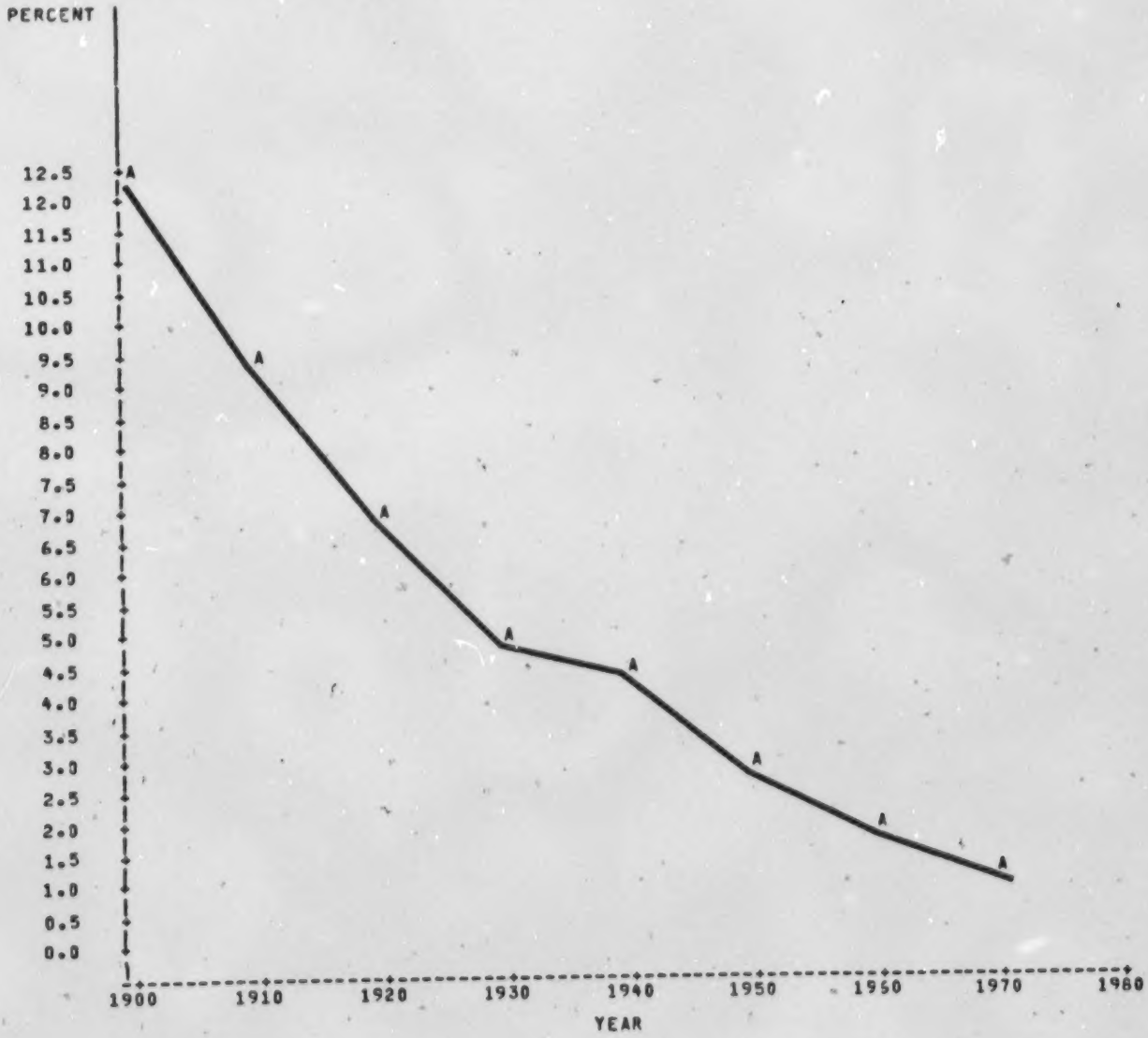


Table 5

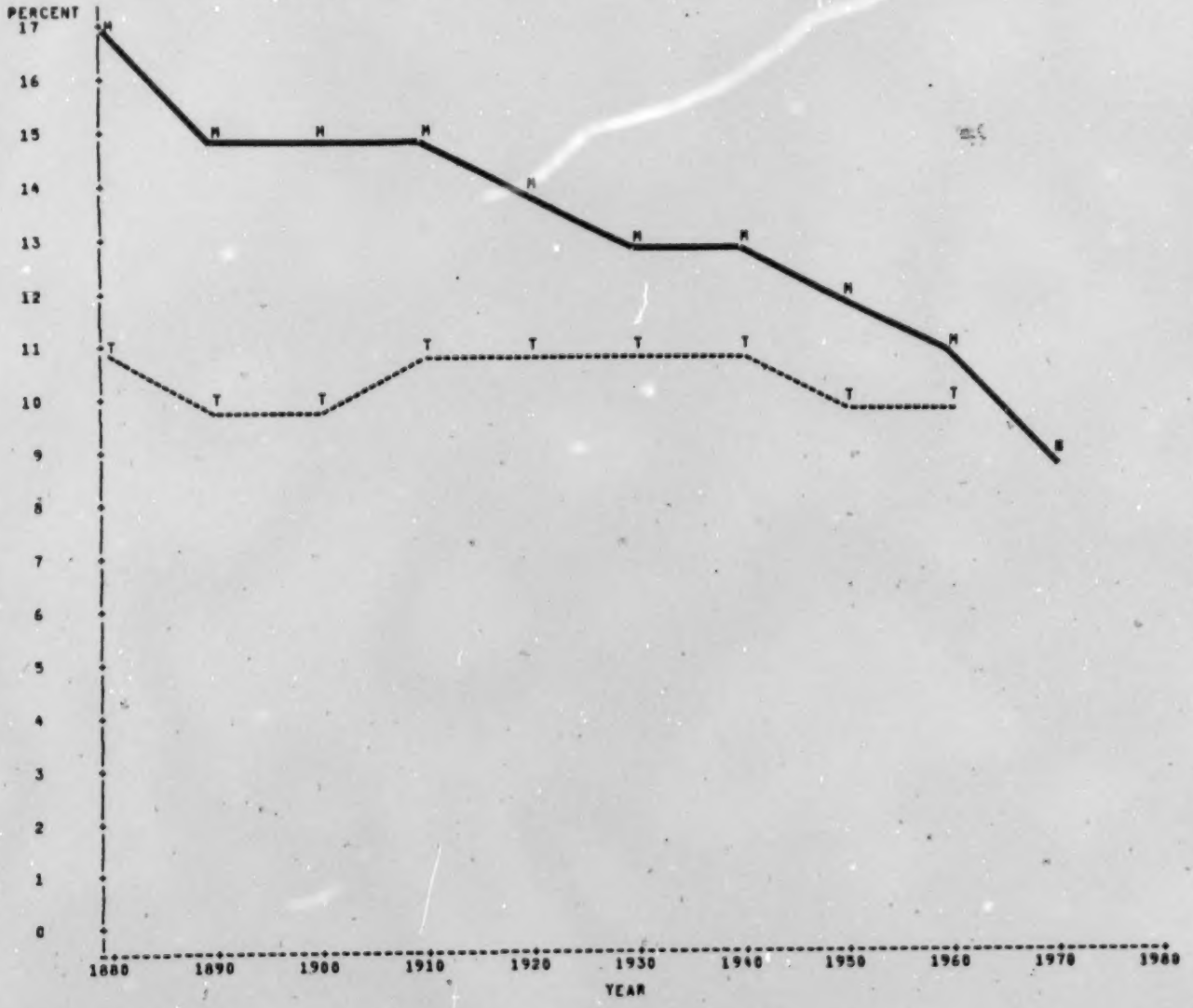
Percent of Total United States Manufacturing Employment Comprised by New York State Manufacturing Employment, and Percent of Total United States Employment Comprised by New York State Employment, 1880 to 1970, by Place of Residence

Year	Percent of All Manufacturing Employment Held by New York State	Percent of Total Employment in All Sectors Held by New York State
1880	16.5	10.8
1890	15.1	10.4
1900	14.5	10.3
1910	14.9	10.4
1920	13.7	10.8
1930	13.2	11.3
1940	12.9	10.9
1950	12.2	10.4
1960	10.9	10.0
1970	8.7	9.0

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Population. U.S. Dept. of Commerce, Regional Employment by Industry, 1940-70.

Graph for Table 5

PERCENT OF ALL US MANUFACTURING (M) AND TOTAL (T) EMPLOYMENT HELD BY NEW YORK STATE



to decline in 1977 (Table 6). Table 5 also shows the stability of New York State employment in total, since from 1880 to 1970 New York's share of all United States employment decreased by less than 2 percentage points and was still equal to its share of the population.

The jobs in manufacturing also changed in nature. In the early part of the century much manufacturing was carried on in small establishments by craftsmen--blacksmiths, cabinetmakers, coopers, engravers, glassblowers, jewelers, shoemakers and cobblers, tinsmiths and coppersmiths, tailors, upholsterers. Gradually, much of the handcrafted goods made by highly skilled workers on an individual basis was replaced by standardized goods made in factories by less skilled persons. Within this general framework were steps along the way that often marked a turn in the road for New York State industry. A few examples will suffice. Starting in the '20s, the apparel industry thought of a new way to break down garment-making tasks. Instead of one worker making an entire shirt from beginning to end, they divided the work so that a person would make collars all day, or sew sleeves or belts, and a garment would be made by a series of workers each specializing in a different simple task. These simplified tasks meant that less skilled workers could be used, and it signaled the move south to find cheaper labor on the part of such apparel industries as produced the cheaper, mass-produced garments. This movement accelerated in the '40s and '50s. This type of development has been paralleled in other industries. In a study of New York City industry in 1960, Lichtenberg[2] pointed out that New York had advantages for manufacturing that produced unstandardized products that changed from year to year, for complex products that required high levels of skill and even scientific knowledge and training, and for new experimental products that also required high skill as well as risk taking and initiative. This is probably still true.

Table 6

N.Y.S. Manufacturing, 1969 to 1977,
by Place of Employment

Year	NEW YORK STATE			EMPLOYED IN MANUFACTURING (thousands)		
	Index of Factory Output[1] 1967=100	Percent of U.S. Manufacturing Employment[2]	Total[3] Employed (thousands)	Total New York State[3]	New York City[3]	Rest of State[3]
1969	106	9.3	n.a.	1,871	826	1,045
1970	100	9.1	7,100	1,761	766	995
1971	98	8.8	7,008	1,633	702	931
1972	102	8.4	6,988	1,602	676	926
1973	108	8.1	7,017	1,619	653	966
1974	106	7.9	7,069	1,575	602	973
1975	96	7.8	6,924	1,422	537	885
1976	104	7.6	6,922	1,439	541	898
1977	107	7.5	7,054	1,459	540	919

Source: New York State Department of Commerce, Business Statistics, New York State, Annual Summary 1977 from information supplied by: 1) New York State Department of Commerce; 2) New York State Department of Labor; and 3) U.S. Bureau of Labor Statistics.

Another turning point for New York and for other cities was the change from railroad to truck transportation of goods. This meant that it was no longer necessary to be located at a railroad center; in fact, cities make transportation by truck difficult for many products. This transportation change was accompanied by a change in factory layout. The older city factories were multi-story buildings on relatively small lots. The newer factories tend to be one-story layouts, with trucks bringing raw materials in at one end, goods moving through a long process and being taken out by truck at the other, with no expensive up-down movement of goods. This change in factory layout was also facilitated, of course, by other factors such as the increased availability of cheap land and labor in small metropolitan or rural areas.

Jobs in factories changed gradually so that for many industries it is no longer necessary to stay close to a traditional pool of workers skilled in a particular craft.

Another change over time has been that newer industries, such as aircraft and plastics, do not use heavier raw materials in which the North had an advantage, but use lighter materials easier to ship around the country.

All of these changes have accompanied and helped to make possible a gradual expansion of population in the west and south. Over time, self-sufficient urban centers have risen in many parts of the country that produce for their own locales goods formerly produced in northern and eastern industrial centers.

These trends are continuing. A 1974 study by the New York State Select Committee on the Economy[3] cited similar reasons for industry's moving out of New York City especially; among these were obsolescence of factories and lack of new appropriate space for reorganization or expansion, lower costs elsewhere for unskilled labor, and general urban problems. Supporting evidence also comes from a study by Boisvert focusing on the period from 1950

to 1970,[4] where he found that the largest percentage reduction in manufacturing in New York took place in the low wage manufacturing industries, both durable and non-durable.

Table 5 shows that manufacturing employment from 1880 to 1970 has declined in New York relative to the rest of the country, and it has continued to decline up to 1977 (Table 6). This, together with Table 7 (giving actual numbers of workers in manufacturing since 1880) shows that while there has been steady relative decline in New York manufacturing since 1880, looking at the absolute number of manufacturing jobs gives us a somewhat different perspective. From 1880 to 1910, the number of workers in manufacturing almost tripled. It went from somewhat over 600 thousand workers to over one and a half million. There has been no comparable increase since 1910. There was a gradual rise until 1940. The 1940 census figures reflect the effect of the 1929 depression, and from 1930 to 1940 there was a decline of almost half a million workers. In 1950, however, the number employed was almost back up to the 1930 level, and it continued to rise until 1960. In 1970 there was a decline of more than 250,000 workers in manufacturing. Comparable information does not exist for more recent years, but a somewhat different array of information indicates that there appears to have been an additional decline. Manufacturing, then, has declined relatively at a slow and steady rate since 1880. It has seen no dramatic increase in absolute numbers since 1910, and since 1960 has declined in absolute numbers.

This is somewhat different from the situation in the nation as a whole, where the dramatic increases came at a somewhat later period. From 1960 manufacturing employment in the nation as a whole increased from 16,062,900 to 18,032,400 in 1970, or an increase of 11 percent. Thus increase in manufacturing employment in the nation has also slowed down since 1960, but not

Table 7

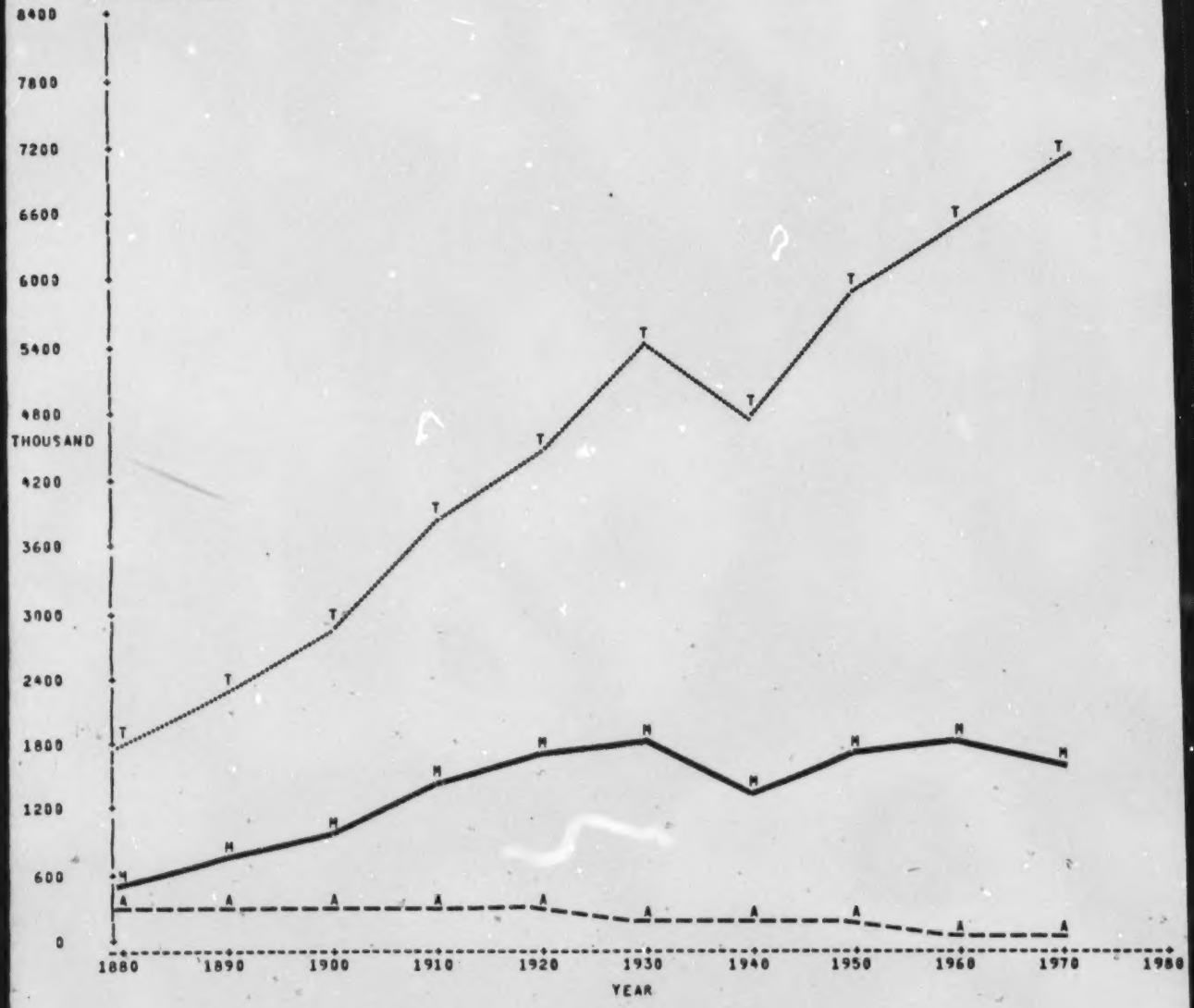
Number of Persons Employed in Agriculture and in Manufacturing, New York State, 1880 to 1970, by Place of Residence

Year	Total Number Employed (thousands)		
	Agriculture, Forestry & Fisheries	Manufacturing	All Occupations
1880	382.8	625.7	1,884.6
1890	407.1	859.6	2,435.7
1900	379.5	1,034.6	2,996.5
1910	378.7	1,591.5	4,003.8
1920	314.8	1,757.1	4,503.2
1930	272.6	1,866.4	5,523.3
1940	219.7	1,387.8	4,974.5
1950	180.7	1,800.1	5,971.9
1960	127.9	1,968.8	6,640.6
1970	93.6	1,737.0	7,209.3

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population, and Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

Graph for Table 7

THOUSANDS OF EMPLOYEES IN MANUFACTURING (M), AGRICULTURE (A), AND TOTAL (T) EMPLOYMENT HELD BY NEW YORK STATE



to the extent that it has in New York. At a later phase it may do so and for reasons similar to those operating in New York.

There are always technological changes in industry, and in the long run these have meant a decline in New York's manufacturing employment. Whether more recent changes are different in kind than previous ones awaits a more detailed study of recent years, but some processes of change have been in motion for a long time. These longstanding trends are sufficient to have alerted forward-looking persons long before 1970 that at least such trends might be expected to continue, and resultant changes in employment have long been inevitable.

Again, the question arises as to how the greater New York City area compares with the rest of the state in loss of manufacturing jobs. From 1960 to 1970 the downstate area lost over 240,000 manufacturing jobs. During this same period, manufacturing jobs increased slightly in the upstate area, as shown in Table 9. Information on employment by place of residence is not available for a later date; information for earlier dates is not available by place of employment. But, using the latter to find out what has happened since 1970, in Table 8 we see that from 1970 to 1976 manufacturing jobs have decreased by 24 percent in the downstate area; from a peak in 1962, they have decreased by 26 percent. In contrast, in the upstate area they have decreased by 15 percent since 1970, and by seven percent since 1962. They seem to have leveled off in both areas, and even increased slightly outside of New York City from 1975 to 1977 (Table 6). The necessity of using data by place of employment rather than residence of course means that one cannot compare Table 6 with Table 5. When we look at employment figures by place of employment, we must realize that some of the people earning a living in a given place live elsewhere and even across state lines. In New York City in 1970, for example, 6.3 percent of the civilians working in New York City

Table 8

Manufacturing Employment, New York State, 1949 to 1976,
by Place of Employment

Year	Number Employed (thousands)		
	Downstate*	Upstate	Total
1949	1,101.1	715.5	1,816.6
1962	1,147.3	711.3	1,858.6
1965	1,117.2	728.8	1,847.1
1970	1,111.8	772.2	1,883.9
1974	920.8	733.0	1,653.9
1976	847.8	659.9	1,507.7

Source: U.S. Dept. of Commerce, County Business Patterns (various years).

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

Graph for Table 8

EMPLOYMENT IN MANUFACTURING IN N.Y. STATE: UPSTATE (U), DOWNSTATE (D), AND TOTAL (T)

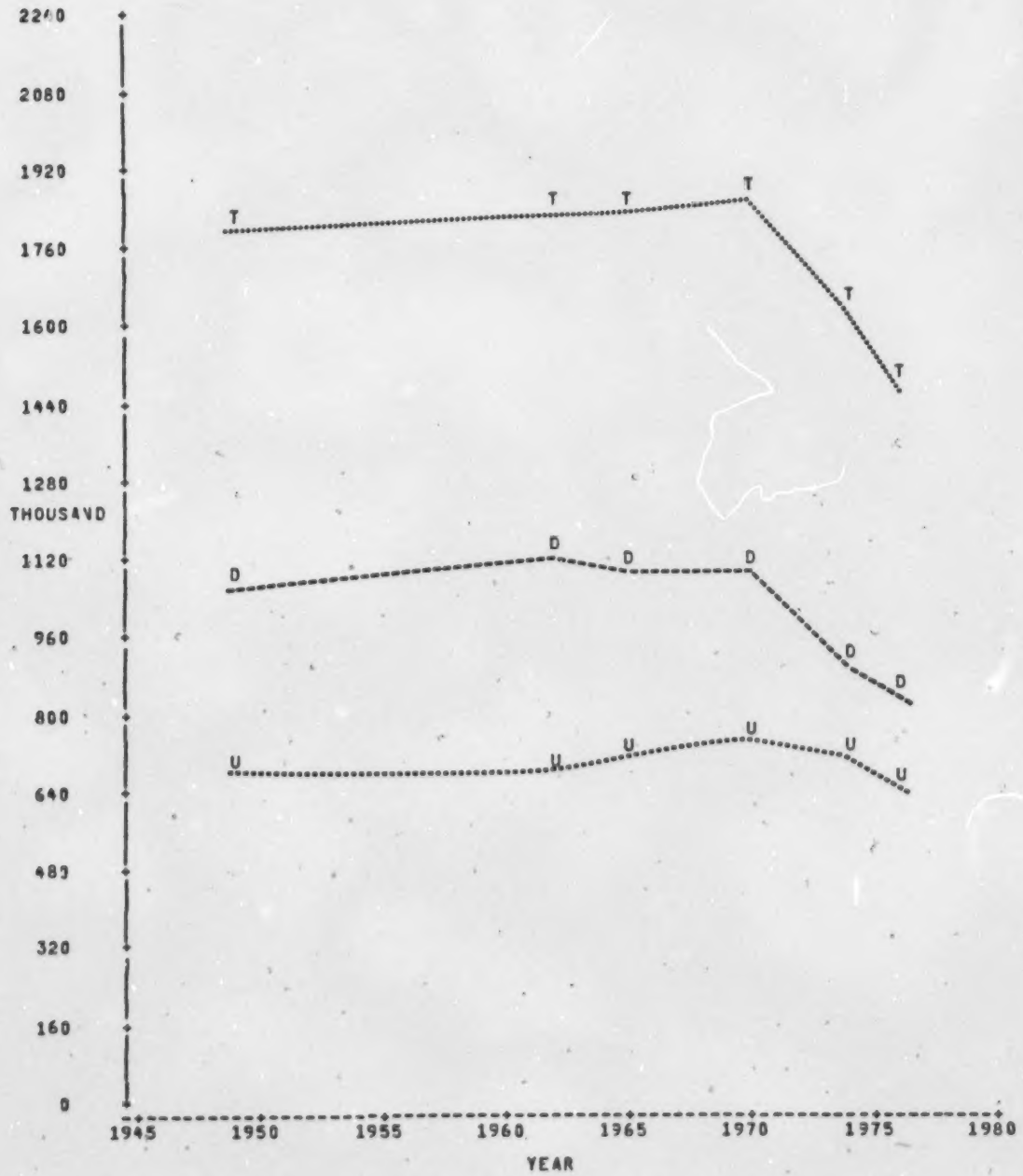


Table 9

Number of Persons Employed in Manufacturing, New York State, by Residence, 1940 to 1970

Year	No. Persons Employed in Manufacturing (thousands)		
	Downstate*	Upstate	Total State
1940	841.1	546.6	1,387.8
1950	1,082.4	717.7	1,800.1
1960	1,203.2	765.6	1,968.8
1970	962.5	774.5	1,737.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

came from New Jersey or Connecticut, while only 1.7 percent of New York City's employed civilian workers commuted to out-of-state jobs.

The index of factory output has been relatively stable for 10 years. It has had slight ups and downs, but basically it has not changed since 1969 (Table 6). There have been modest decreases in employment upstate in recent years, and this trend will need to be watched. But the largest loss is in the New York City area and reflects the changing nature of manufacturing that makes city location disadvantageous, and perhaps also reflects the changing role in American society of the industrial city.

A number of books have been published describing and explaining the economic rise of the south or of the sunbelt.[5] One fact they bring out is that notwithstanding the dramatic industrial development of the south, no new industrial cities have grown up there. In fact, the only real industrial city in the south is Birmingham, Alabama, and that city antedates the new era. Characteristically, industries have moved to small towns in the south. In the case of some newer industries such as the aerospace industries, they have developed there because they are attracted by open spaces. Cities have grown, but not in terms of closely placed high-rise factories. Houston, Texas, for example, has followed the sprawl of Los Angeles. In California between San Francisco and San Jose, industry is spread up and down the entire length of the peninsula amidst the suburbanization, and no new industrial city has arisen.

Industrial cities of the older type, in the sense of an array of interrelated factories clustering around raw materials and rail and port facilities, are obsolete in many important ways. The change from rail to truck transportation, as mentioned, was accompanied by a change to one-story factory design. Finally, a closely related work and living situation has been found

to be appealing to both employer and employee. Many employers have found a move to suburbs or small towns has gone a long way toward solving problems of trained or educated personnel that are dissatisfied because of the problems of urban living. Decline may level off eventually to some extent, since it will probably remain efficient to produce goods for local consumption and some goods will continue to be shipped out of the cities.

Symbolic of the changing functions of the large cities, and especially New York, is the rise in employment in business services, finance, insurance, and real estate. Service employment has risen dramatically except for private household service, which declined in the period from 1940 to 1970. Downstate employment in business services and finance, insurance, and real estate increased by 92 percent from 1940 to 1970, or by 320,653 jobs. (See Table 10.) Upstate, such employment increased by 111 percent in the same period, or by 81,977 jobs. Often the rise in service employment is discussed in distressed tones implying that unless what an employee produces can be seen, touched, smelled or kicked, it is unreal, that those in service types of employment are parasitic on the real producers. Such ideas are artifacts of our system of counting jobs. Singelmann[6] has pointed out that our lumping all sorts of employment in the service category obscures what has been happening to the structure of employment. He developed a new set of categories of employment that are more illuminating. In this scheme services are broken down into producer services, social services, and personal services. The producer service category, in addition to banking, insurance, real estate, and business services, also includes certain professional services: accounting, engineering and legal services. This typology has been reconstructed for New York and for the United States as a whole for 1970. (Table 11.) New York has 3.7 percent more of its population employed in producer services than the United States. It has 1.0 percent more in social services. Within this

Table 10

Number Employed in Business Services and Finance, Insurance and Real Estate, New York State, by Residence, 1940 to 1970

Year	Number Employed in Business Services, Finance, Insurance & Real Estate (thousands)		
	Downstate*	Upstate	Total State
1940	350.2	73.9	424.1
1950	405.6	96.6	502.2
1960	530.8	120.2	651.0
1970	670.8	155.9	826.7

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

Graph for Table 10

N.Y.S. EMPLOYMENT IN BUSINESS SERVICE, FINANCE, INSURANCE, AND REAL ESTATE: UPSTATE (U), DOWNSTATE (D), AND TOTAL (T)

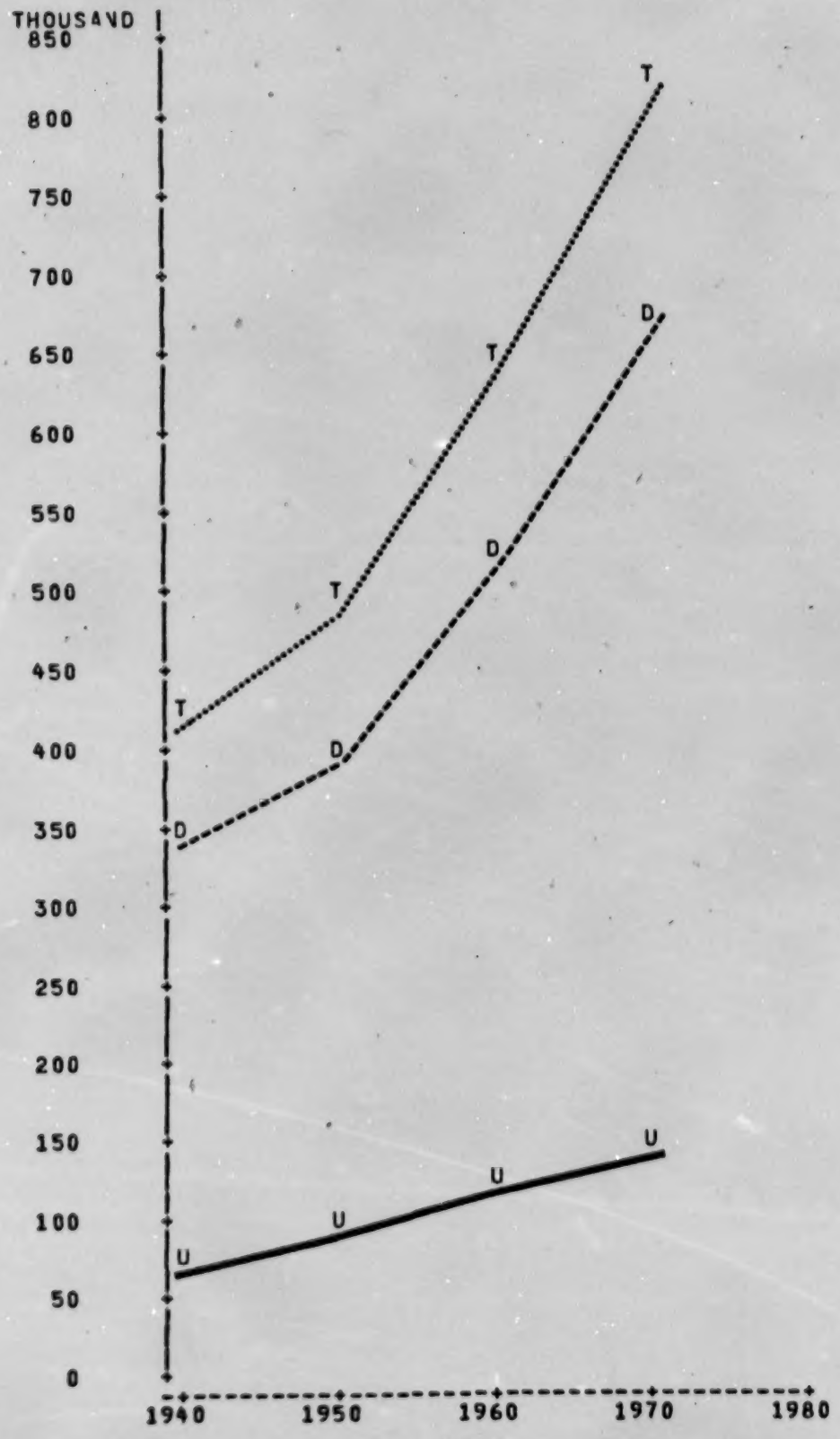


Table 11

Service Employment, New York State
and United States, 1970

	Percent Employed, Persons 14 Years or Older	
	New York	United States
Producer Services	11.4	7.7
Legal	0.8	0.5
Business services	2.7	1.7
Finance	3.5	2.0
Insurance	2.1	1.7
Real estate	1.3	1.0
Engineering & architecture	0.5	0.4
Accounting	0.5	0.4
Social Services	21.3	20.3
Health	6.1	5.5
Education	8.1	7.9
Welfare	0.9	0.5
Non-profit organizations, museums, art galleries and zoos	0.6	0.5
Religious	0.5	0.6
Postal	1.3	0.9
Government	3.9	4.3
Personal Services	5.7	6.3
Private household, hotel, motel lodging, eating and drinking, laundry, barber & beauty, misc.	3.6	4.3
Entertainment	0.9	0.8
Repairs	1.1	1.2
Total All Service	38.4	34.3
Total Employment, All Industries	100.0	100.0

Note: Percentages may not add to subtotal percentages because of errors of rounding.

Sources: U.S. Department of Commerce, Bureau of the Census, Census of Population, Part 34, New York, Table 183; and U.S. Summary, Part 1, Table 235.

category, it has 0.4 percent less in government service exclusive of postal service. It has 0.6 percent less in personal services than the United States as a whole. Therefore, though New York has 4.1 percent more of its employment in service occupations than the United States as a whole, nearly all of this is in the category of producer services.

Many of the functions performed now by specialized business and financial services and listed under producer services in earlier days were performed in the factory itself or not at all. There were no management consultants, data processors, employment specialists, advertising agencies, or the like. These services are essential to industrial production, and even the largest corporations do not always perform them for themselves. Smaller industries perhaps could no longer afford to provide these within the plant and could not survive without them. Thus, much service employment is essential to industrial production. Some of these services are performed in New York for companies located around the nation.

A second category that has increased rapidly is that of social services. New York City has become a medical and educational center and a headquarters for many religious and social organizations nationally. It serves much more than the people of New York State in these respects. And in New York State even a substantial part of the personal service employment brings in income from outside the state, for restaurants, lodging, and entertainment are included in this category.

Recent decades have brought branches of banks from all over the world to New York City. No important bank would be without a New York branch. As New York has declined as an industrial center, it has attained an important status as a world center for business and banking and for communications and as at least a national center for medicine, education, the arts, religious groups, and nonprofit organizations. Symbolic of this change are recent

legislation enacted in New York to make it a free trade zone for insurance and proposed measures to make it a free trade zone for banking. These steps recognize New York's growing role in the area of finance and give support to an already existing trend. Such measures could be of great importance in the transition of New York City to a new role. To put it differently, New York has become a center for "software" rather than for "hardware," to draw an analogy from the computer field. It has become a center for interchange of ideas, information, planning, invention, and creation in many areas. For all of the persons working in these fields, a large city is still of substantial importance. Likewise, it will probably continue to offer advantages to new, complex, creative types of manufacturing.

Nationwide, a second wave of growth and specialization of other subcenters is taking place, and over time many other educational, medical, and financial centers will perform in the realm of ideas for their local areas. Chicago, Los Angeles, and San Francisco areas and many others already exist. Older as well as newer cities are likely to continue in this direction. In time, New York City, as it becomes decreasingly devoted to industrial production and more to an array of important services, may become a smaller but also much more liveable place. Attention should be focused on how to help the transformation, rather than how to recreate a rapidly disappearing past. Industrial cities appear to be anachronistic, but cities--national cities like New York--continue to thrive in important new ways. This is not to say that difficult problems do not exist, and these will have to be solved if a livable new stage is to be reached. Among these are various types of urban decay and maldistribution of income and jobs, summarized by the word ghetto.

Figures 2, 3, and 4 are graphs showing the numbers of persons employed in the various sectors in 1940, 1950, 1960, and 1970. Figure 2 shows employment for the whole state, Figure 3 for downstate, and Figure 4 for upstate.

Fig. 2

TOTAL N.Y. STATE EMPLOYMENT TRENDS BY CATEGORY

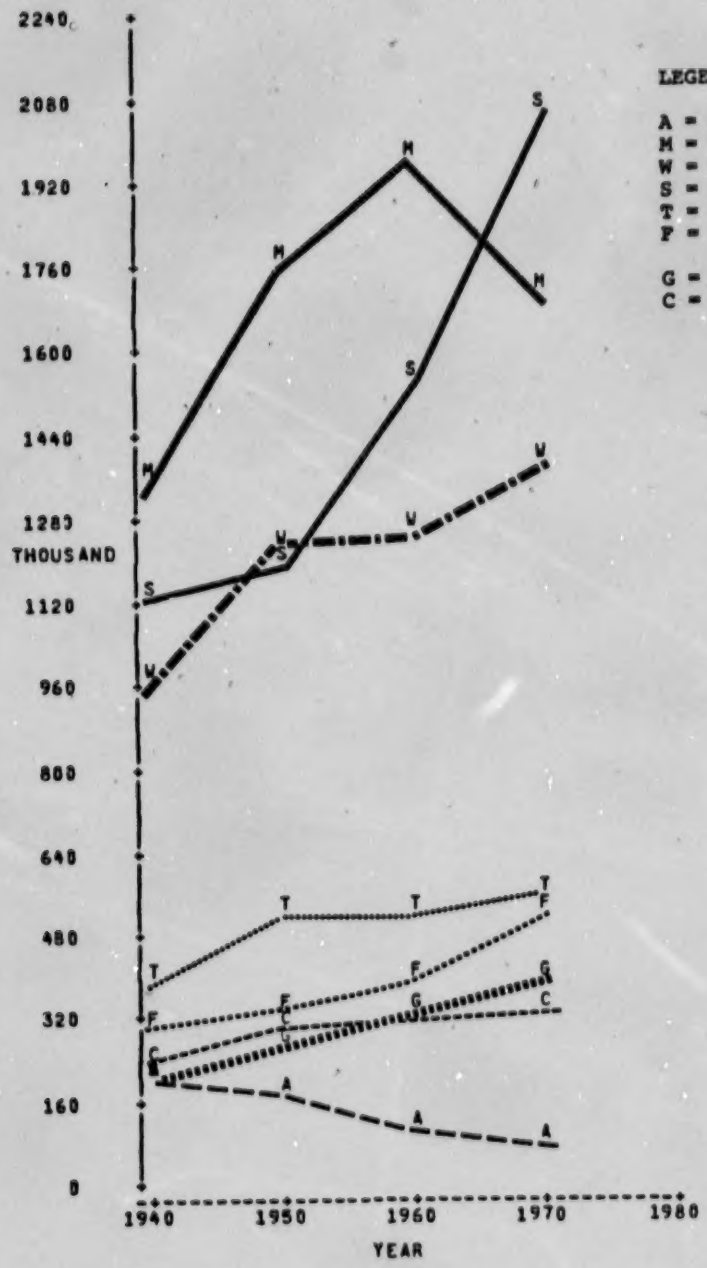


Fig. 3

DOWNSTATE NEW YORK EMPLOYMENT TRENDS BY CATEGORY

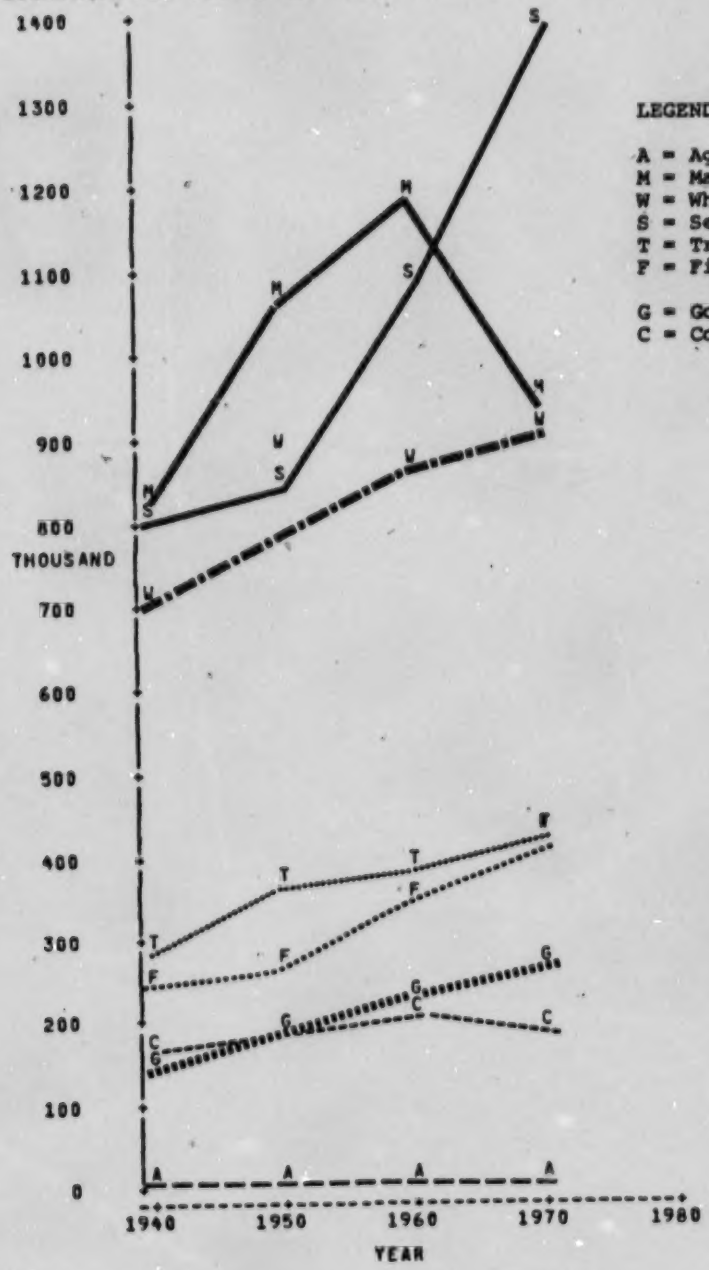
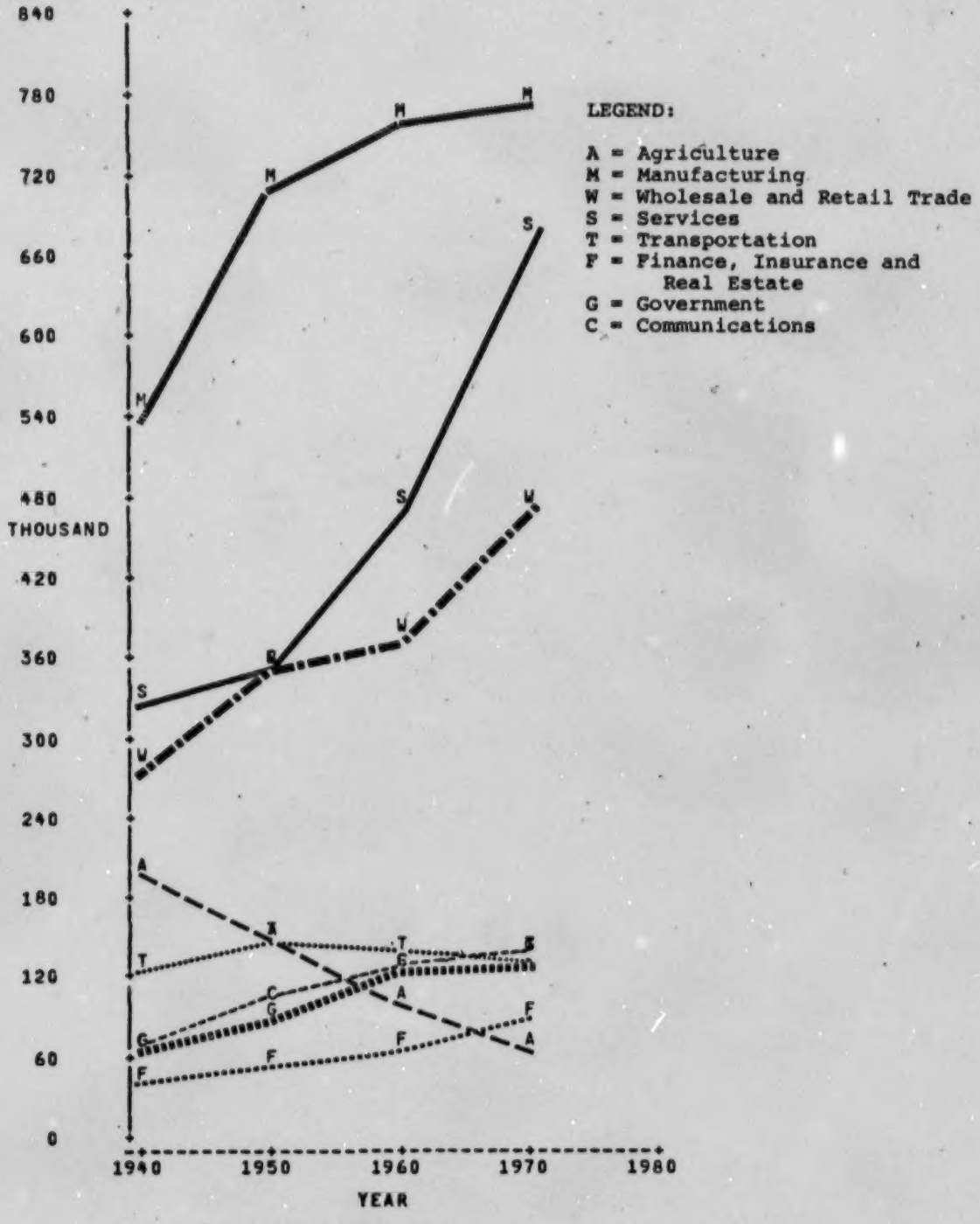


Fig. 4

UPSTATE NEW YORK EMPLOYMENT TRENDS BY CATEGORY



Government employment of all types has increased by 86 percent for the downstate area in the 30-year period, and has more than doubled for upstate. However, it is still a relatively small sector of employment for both, as examination of the graphs shows. Wholesale and retail trade and contract construction employment have increased substantially for the upstate areas, but only modestly for downstate. Upstate, wholesale and retail trade have increased by 69 percent, and contract construction employment by 81 percent; downstate by 29 percent and 15 percent, respectively. Employment in transportation, communication, and public utilities has increased by 48 percent in the 30-year period downstate. This is in non-railroad and non-truck transportation and in communications. This, again, could reflect the rise of "software" and decline of "hardware" types of production in New York City.

Table 12 shows population increases from 1940 to 1970 upstate, downstate, and for the total state. Increase downstate was 33 percent from 1940 to 1970, upstate 39 percent, slightly larger. These slight differences in population increases, then, do not account for the relatively larger increases upstate in employment in wholesale and retail trade, in contract construction, and in finance, insurance and real estate. Upstate areas have enjoyed increases parallel to downstate increases in employment in government and in services. It appears that in New York State, as in the rest of the nation, a trend assisted, if not caused by, changes from rail to highway transportation has led to a spread of business out of cities and over a wider area, with local areas providing for themselves many goods and services formerly available only in major centers. Overall increases in employment upstate are far greater than the increases that might be expected on the basis of population increase. This trend, again, is a countrywide phenomenon of increasing localization of production of goods and services. This trend affects New York State as a whole, since other areas now provide goods formerly imported from New York,

Table 12

New York State Population, 1940 and 1970

	Number of People (thousands)		
	Downstate	Total State	Upstate
1940	8,723.5	13,479.1	4,755.7
1970	11,632.4	18,241.6	6,609.1
Increase, 1940 to 1970	2,909.0	4,762.4	1,853.5
Percent increase, 1940 to 1970	.33	.35	.39

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population.

and it affects cities around the country, since the goods and services have been decentralizing to smaller cities. It is a trend that may level off as goods and services upstate rapidly fill the present need and the same proportion of new businesses and services are not needed in the future.

A few words should be said about agriculture and the food producing industries. Agricultural employment has been decreasing because of more efficient production. It has also been decreasing because the task of getting food from the ground to the consumer has changed. Tasks formerly performed on the farm are now performed in the factory or in the wholesale or retail store, and this has meant an increase in transportation of food and in packaging and refrigeration. Tasks formerly performed in the consumer's kitchen are now performed in factory, retail store, or restaurant. Likewise, there are new jobs in the production of tractors, fertilizer, seeds, and the like used on the farm. Thus, the decline in food-connected jobs has not been as precipitate as in agricultural jobs. Jobs in food and dairy products stores, for example, have been relatively stable for thirty years; over the whole period they have increased by about 10,000 jobs in the state. Overall, it is difficult to measure trends in food-connected employment without a field study, since they are hidden in many categories. But the probability is that though food-connected employment may have declined, it at least has not declined as rapidly as agricultural employment specifically.

Composition of the Work Force

Female Employment. The proportion of women employed over the period from 1900 to 1970 has increased by over 10 percentage points (see Table 13). However, the increase has not been steady. There was little increase until the post World War II years. By 1950 the proportion was up to 24.3 percent,

Table 13

Composition of the New York State Labor Force and Its Dependents, 1900 to 1970

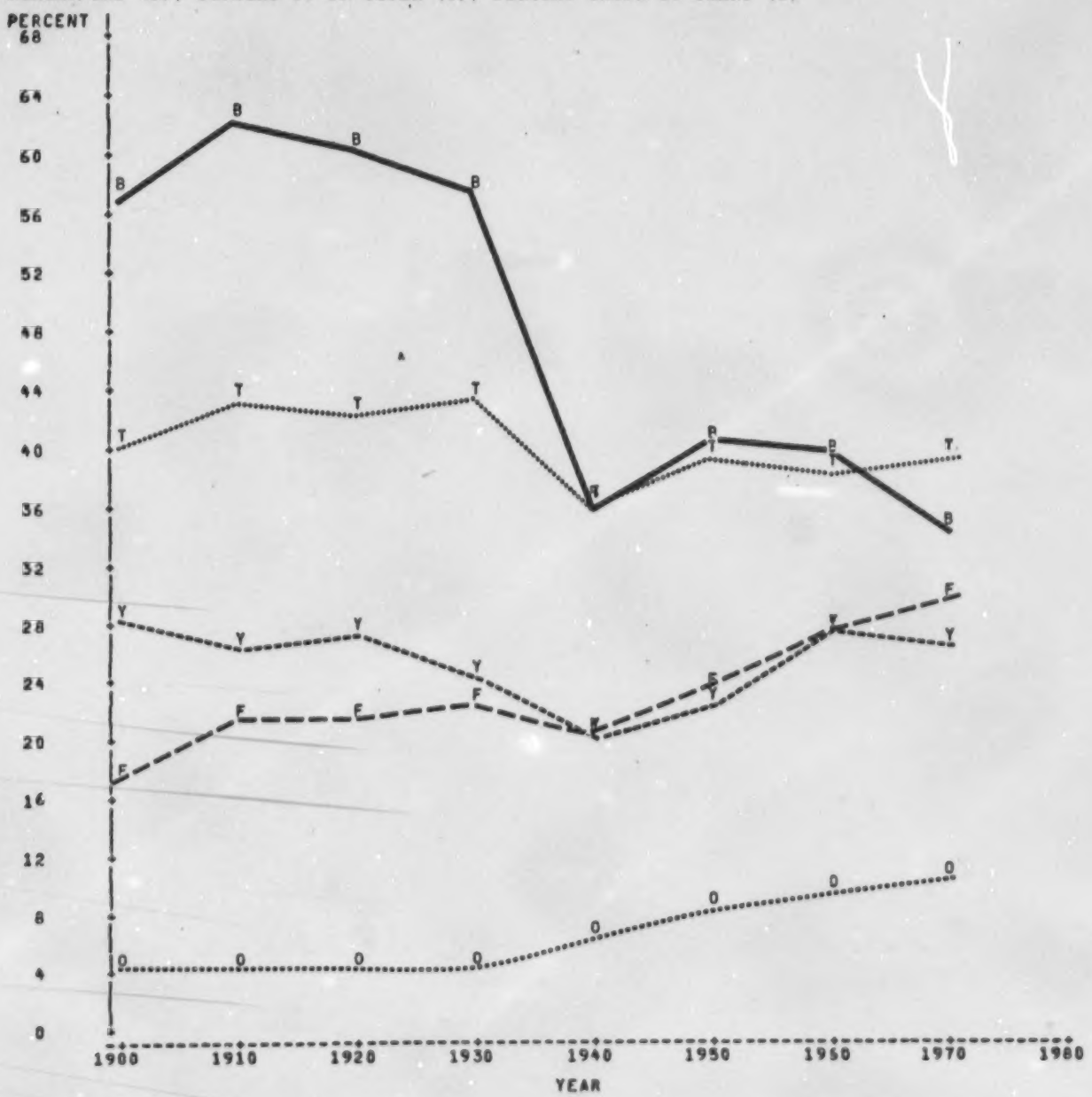
Year	Percent of Total Population Employed	Percent of Females Employed	Percent of Black Persons Employed	Percent of Population 65 Years and Over	Percent of Population Less than 15 Years Old	Persons 16-34 Years in School as Percent of Total Population
1900	41.2	18.4	57.5	4.8	29.1	0.2*
1910	43.9	21.7	62.6	4.6	27.3	0.3*
1920	43.4	21.8	61.4	4.8	27.8	1.9
1930	43.9	22.5	58.0	5.3	25.1	4.0
1940	36.9	21.4	36.5	6.8	20.6	4.3
1950	40.1	24.3	41.3	8.6	22.8	4.5
1960	39.3	27.8	39.5	10.0	27.6	4.9
1970	39.5	30.2	35.3	10.8	26.8	7.7

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population and Statistical Abstract of the U.S., 1932 and 1960.

*Includes persons 15 and over in school.

Graph for Table 13

N.Y. STATE PERCENT OF TOTAL EMPLOYED (T); PERCENT FEMALES EMP (F); PERCENT BLACKS EMP (B); PERCENT 65 OR OLDER (O); PERCENT UNDER 15 YEARS (Y)



and in 1960, 27.8 percent. By 1970, 30.2 percent of all women were working, compared with 39.5 percent of all persons, male and female.

Employment of Black People. In 1900, 92 percent of employed black women worked in domestic and personal service occupations, as did 54 percent of black men. In the same year, of the total population only 17 percent of the employed men and 40 percent of the employed women were in domestic and personal service jobs. This is high compared with 1970, when only 11 percent of all employed men and 16 percent of all employed women held domestic and personal service jobs, but it is low compared with the black employed group at that time. In 1900, occupations classified as domestic included not only all manner of household servants but also barbers and hairdressers, laundresses, nurses and midwives, and laborers. The laborer category included elevator tenders, coal yard laborers, longshoremen, and stevedores as well as other types of laborers. Today many of these jobs have gone into other and more skilled classifications. Nurses are educated and skilled persons. Laundry is usually done at home, and the only employment provided is in the manufacture of laundry equipment. Household servants are largely replaced by mechanical devices and fast food operations. Domestic and personal service in 1900 was a catchall category for unskilled labor.

Over the years since then, more and more jobs that had been performed by unskilled workers have come to be performed by machines, at home, or not at all, and the pool of such jobs has steadily declined while service jobs in general have increased. These latter include such categories as business and repair services, entertainment and recreation, and professional services. During this entire period, black people have continued to hold more than their share of the domestic and personal service jobs. In 1970, almost twice as large a proportion of both black men and black women held domestic and

personal service jobs as of the population as a whole (19 percent for black men, and 33 percent for black women). In this period, the black population has increased from 1.4 percent of the total New York population in 1900 to 11.9 percent in 1970 (see Appendix Table A). Many of the later arrivals have had language and cultural adjustments to make, since many people from Caribbean areas are included in their number. Such population changes, including immigration from the Caribbean and from the south over a long period of time, have contributed to employment problems of the group, since new people, often inexperienced and with adequate education, continually have to be incorporated into the labor force.

However, the most dramatic change in black employment took place as a result of the depression of the 1930s. From 1900 to 1930 (Table 11), from a low of 57.5 to a high of 62.6 percent of black people were employed. In the general population the percent employed varied from 41.2 to 43.9 percent, a striking contrast to black employment. In these early years, the black population had more children under 15 years of age to care for than the general population did. They numbered a higher percentage of women in their group. The percent of the elderly was roughly comparable to that of the white population. This meant that a large part of the black population, probably including the very old and the very young as well as mothers of young children, were working at unskilled and low-paying jobs to support the rest of the group. This was not necessarily a healthy situation.

In the 1930s a striking change took place in black employment. By the census of 1940, when the changes of the '30s had become evident, the percent of black people employed had dropped to 36.5 percent. In 1970, only 35.3 percent of the black population was employed, compared with 39.5 percent of the general population. This represents an all-time low for black people.

One of the effects of the depression was the loss of unskilled jobs, and especially personal service jobs, at an unprecedented rate. From 1930 to 1940, personal service jobs declined by 197,600 jobs. As the most disadvantaged group with respect to education, training, and, above all, discriminatory treatment, the black work force suffered most from the lack of available unskilled jobs, from the increasing mechanization and level of skill demanded in many areas of work, and from the growth of unionism in the post depression era. About the time that unskilled personal service jobs declined, those factories that converted their assembly jobs to unskilled work were moving out of New York, and many of the jobs remaining demanded more skill because of increasingly mechanized production. Black people were shaken out of the work force during the '30s and as a group have never been able to recover from this blow. Better educated and trained groups, groups not suffering discriminatory hiring practices, gradually recovered in the war years and the postwar years of industrial expansion. But blacks have continued to lag behind to the present day, as the general level of education and training of the group prevents it from competing for skilled jobs even where discrimination is controlled by law.

Age Changes. The proportion of the population over 65 (and therefore generally no longer in the work force) more than doubled from 1900 to 1970. Many of these people now have pensions of some kind, whereas they did not in 1900.

The proportion of persons under 15 in the whole population has not changed much since 1900, but the proportion of persons sixteen and over who are in school has increased markedly over the 70-year period. Only 7.7 percent of the adult population were in school in 1970, but this represented over five times the proportion in school in 1900.

In 1972, 32.4 percent of all men from 16 to 34 years old were enrolled in school, and 24.4 percent of women in the same age group. Again, black people suffer by comparison; among both men and women in the 16 to 34 year age group a smaller proportion of black men and black women were enrolled in school--22.3 percent of black men and 18.3 percent of black women. This constitutes additional evidence of the growing level of skill of most of the work force and the relative disadvantage of the black group. Considering the level of skill required by most modern jobs, attention should probably be placed on education and job training for black youth, rather than employment in unskilled jobs.

Changes in Agricultural Employment and in the Structure of Agriculture

Over the period since 1900, we have seen that agricultural employment has steadily decreased. While some of the farm tasks are now being performed in factories and shops, nonetheless the decrease in jobs is dramatic. What has been happening on the farm to cause this decrease? Table 14 shows that in the period from 1910 to 1974 the percent of land in farms declined drastically; in 1910, 72.2 percent of the state's land was in farms; in 1974, only 30.7. The average farm size doubled in that period, and in 1974 there were only about one-fifth as many farms as in 1900. Table 15 shows the increase in tractors on farms. Tractors are only part of the equipment and machinery available to the modern farmer, but they indicate what has happened. When tractors came into use in 1920, few farms had them. The ratio of tractors to farms has risen steadily. What about production? The number of pounds of milk produced by each cow (Table 16) has increased steadily since 1890. The number of bearing apple trees (Table 17) has gone steadily down, while the number of bushels of apples produced has been stable until now. Wheat yields

Table 14

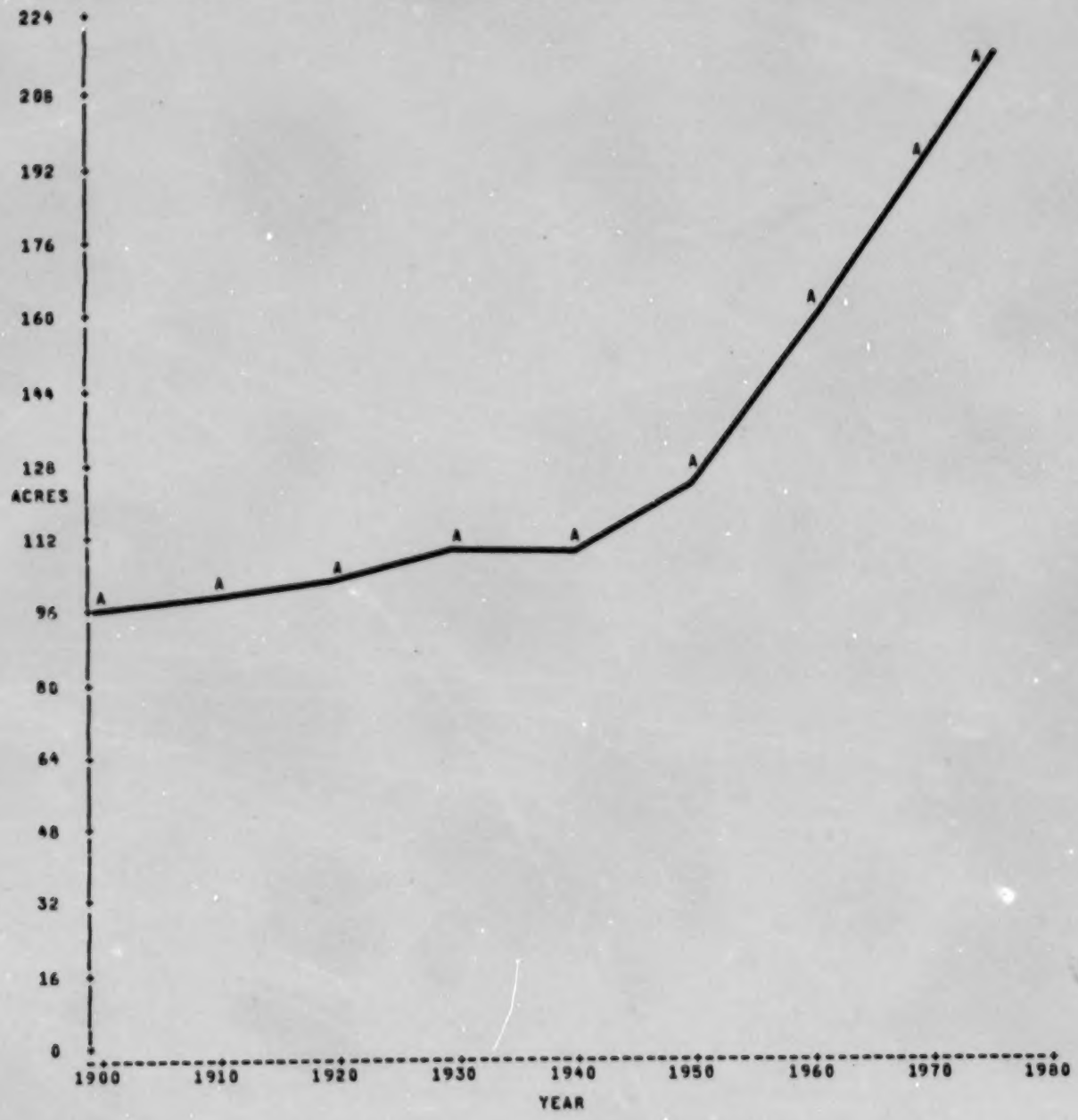
Concentration of New York State Farm Holdings, 1900 to 1974

Year	Percent of Land in Farms	Average Size of Farms in Acres	Number of Farms (thousands)
1900	74.3	99.9	226.7
1910	72.2	102.2	215.6
1920	67.7	106.8	193.2
1930	59.0	112.5	159.8
1940	56.0	112.1	153.2
1950	52.2	128.2	125.0
1960	44.0	163.8	82.4
1969	33.2	196.0	51.9
1974	30.7	215.0	43.7

Source: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture, 1900 to 1974.

Graph for Table 14

TRENDS IN AGRICULTURE IN NEW YORK STATE: AVERAGE SIZE OF FARMS IN ACRES



Graph for Table 14

TRENDS IN AGRICULTURE IN NEW YORK STATE: PERCENT OF LAND IN FARMS

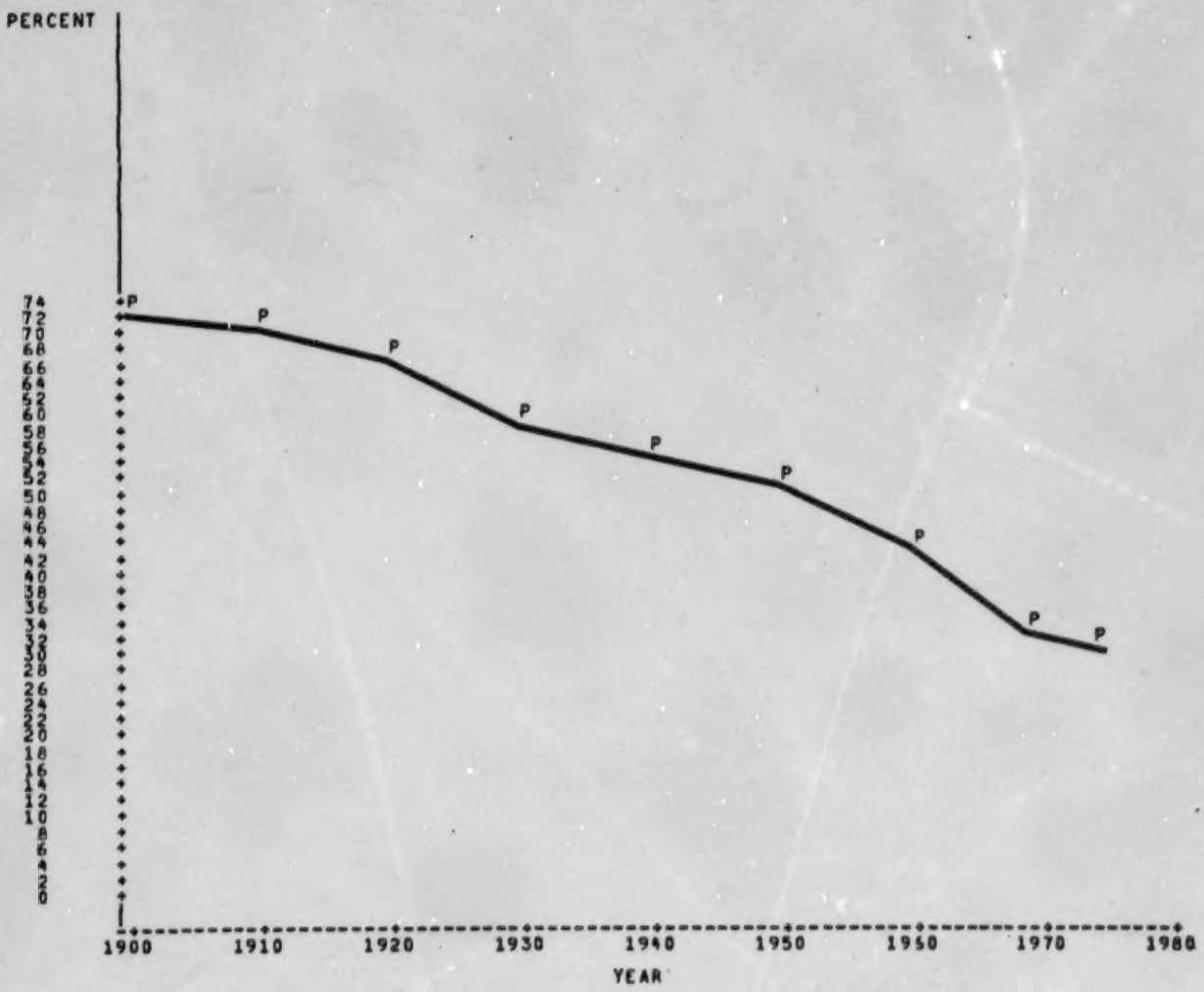


Table 15

Tractors on New York State Farms, 1920 to 1974

Year	Number of Tractors	Total Number of Farms	Tractors per Farm
1920	7,491	193,195	.04
1925	25,681	188,754	.14
1930	40,369	159,806	.25
1935	NA	177,025	--
1940	58,906	153,238	.38
1945	87,001	149,490	.58
1950	108,554	124,977	.87
1954	129,741	105,714	1.23
1959	138,670	82,356	1.68
1964	136,304	66,510	2.05
1969	122,645	51,909	2.36
1974	118,313	43,682	2.71

Source: U.S. Department of Commerce, Bureau of the Census, U.S. Census of Agriculture (various years); and Maurice Bond, Changes in N.Y.S. Agriculture, 1850-1950, and Changes in N.Y.S. Agriculture, 1850-1964, Cornell University.

Table 16

Milk Production Per Cow, 1890 to 1976

Year	Pounds of Milk per Cow
1890	3,964
1900	4,426
1910	5,211
1920	4,388
1925	4,734
1930	5,538
1935	5,181
1940	5,679
1945	6,093
1950	6,590
1954	6,830
1958	7,680
1964	9,110
1969	10,067
1973	10,773
1975	10,866

Source: Maurice Bond, Changes in N.Y.S. Agriculture, 1850-1950, Cornell University; and U.S. Department of Agriculture, Agricultural Statistics (various years).

Table 17

Apples, Number of Trees and Production, 1855 to 1975

Year	Total Number of Trees in thousands	Thousands of bearing trees	Production in millions of Bushels
1855	NA	NA	13.7
1865	NA	9,809	16.3
1875	18,278	NA	23.1
1890	NA	14,428	8.5
1900	NA	15,054	24.1
1910	14,076	11,248	25.4
1920	12,569	9,637	14.4
1925	11,891	9,469	19.1
1930	10,302	8,285	14.0
1935	9.099	7,684	13.6
1940	6,582	5,377	19.7
1945	6,574	NA	14.8
1950	4,976	4,256	16.9
1954	3,495	2,934	18.4
1959	3,260	2,554	18.6
1964	3,217	2,489	16.6
1969	3,782	2,795	18.6
1975	3,555	NA	24.0

Source: Maurice Bond, Changes in N.Y.S. Agriculture 1850-1950 and Changes in N.Y.S. Agriculture 1850-1964, Cornell University; and Albany, N.Y., New York Crop Reporting Service, Orchard and Vineyard Survey (recent years).

have increased, especially since the 1950's, although there has been no increase since about 1966 (Table 18). Corn yields also began to increase in the '50s, and it is not clear whether they, too, are now tapering off or will continue to rise (Table 19).

All of this put together gives us a picture of much more concentrated production, of less land and fewer people producing much more per person and per acre with the help of machinery and scientific knowledge. It is a great success in its way, but it has meant that either fewer people and less land would be needed to produce the same amount of food as before or that an ever increasing market would be needed to absorb additional production. Both have been the case in the past, but now New York population is either leveling off or declining and other areas of the country are producing their own food and creating surpluses. Many people left in agriculture would like to remain, and most of us would be reluctant to see agriculture decline in New York State to any greater extent.

Changes in Industrial Production

What has happened to the structure of industry in the same period? If we look at factory size, the average number of employees per establishment has doubled since 1899 (see Table 20). In the same period the total number of factories has changed very little. Despite this increase in average factory size, small establishments are still the prevailing type; in 1972, 62.4 percent of all manufacturing establishments still employed fewer than 20 employees each. As high a proportion as 32 percent employed 4 or fewer employees, and only 7.5 percent employed more than 100 employees. Thus changes in industrial size are basically similar to those in agriculture, but small establishments are still numerous and important, particularly in production for local use.

Table 18

Wheat Yields in New York State, 1920 to 1976

Year	Bushels per Acre	
	Winter Wheat	Spring Wheat
1920	21.0	18.0
1925	18.5	19.5
1930	18.0	17.0
1935	23.0	16.5
1940	26.0	18.5
1945	26.5	19.0
1950	28.0	24.5
	All Wheat	
1953	29.5	
1955	32.5	
1960	30.0	
1965	37.0	
1966	42.0	
1967	40.0	
1968	40.0	
1969	40.0	
1970	43.0	
1971	40.0	
1972	37.0	
1973	36.0	
1974	40.0	
1975	39.0	
1976	36.0	

Sources: New York Crop Reporting Services, Statistics Relative to Field Crops in New York State, 1920 to 1953; New York State Field Crops, 1954 to 1967; and New York Agricultural Statistics (various years from 1968 to 1976).

Table 19

Yields of Corn for Grain, New York State, 1924 to 1976

Year	Bushels per Acre
1925	36.0
1930	30.0
1935	34.0
1940	32.5
1945	35.0
1950	45.0
1955	49.5
1960	59.0
1965	61.0
1966	70.0
1967	77.0
1968	72.0
1969	75.0
1970	79.0
1971	78.0
1972	70.0
1973	77.0
1974	80.0
1975	85.0
1976	77.0

Sources: New York Crop Reporting Services, Statistics Relative to Field Crops in New York State, 1920 to 1953; New York State Field Crops, 1954 to 1967; and New York Agricultural Statistics (various years from 1968 to 1976).

Table 20

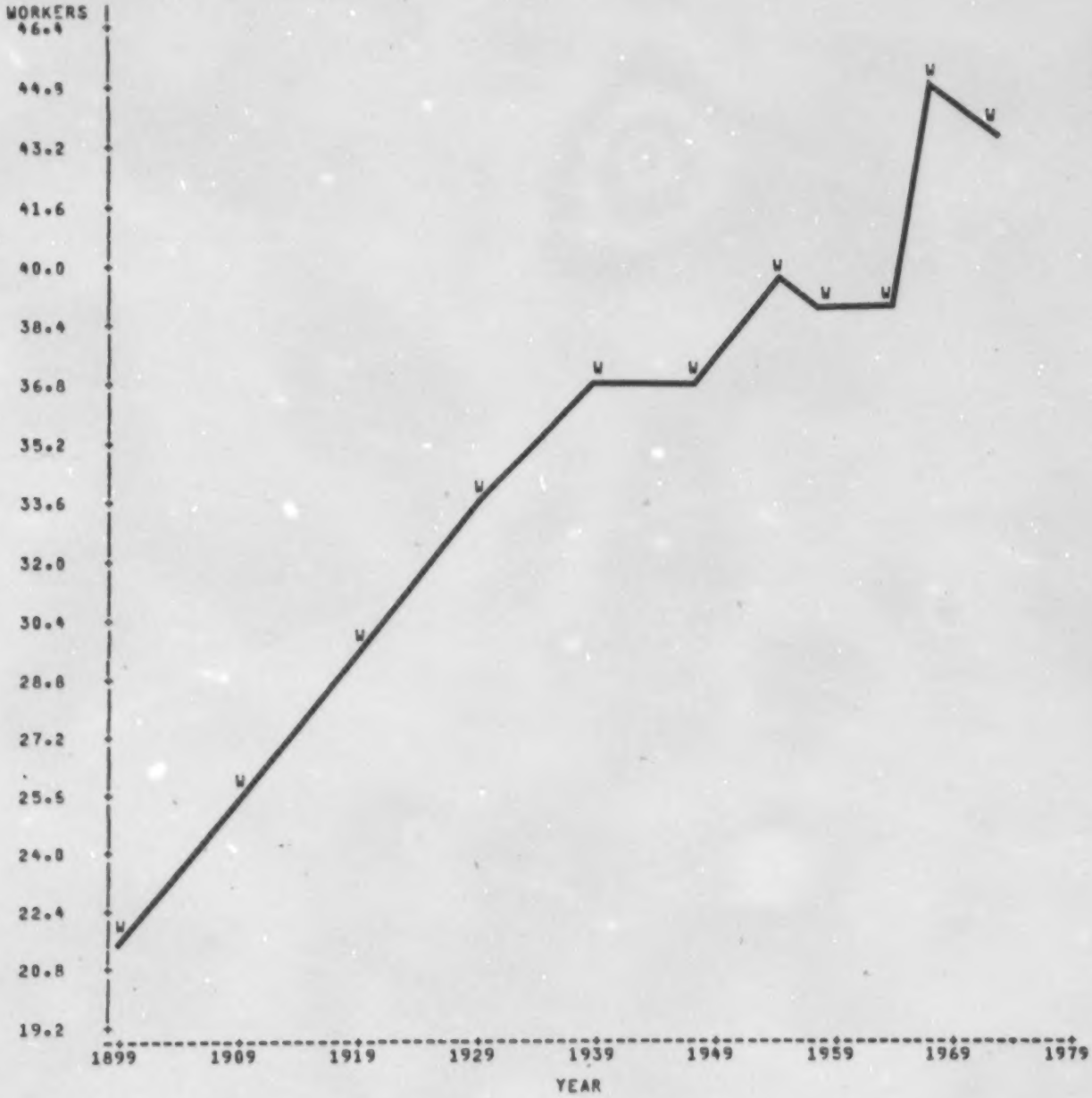
Number of Employees per Manufacturing Establishment

Year	Average No. of Employees per Establishment	Total No. of Establishments (thousands)
1899	22.1	36.0
1909	25.7	44.9
1919	30.4	48.3
1929	33.8	39.4
1939	37.1	32.7
1947	37.1	47.8
1954	39.7	50.4
1958	38.8	49.4
1963	39.4	47.0
1967	45.0	42.9
1972	43.8	38.3

Source: U.S. Department of Commerce, Bureau of the Census, U.S. Census of Manufacturing 1972, Volume 1, Table 7, General and Comparative Statistics by Geographic Area 1972 and prior census years.

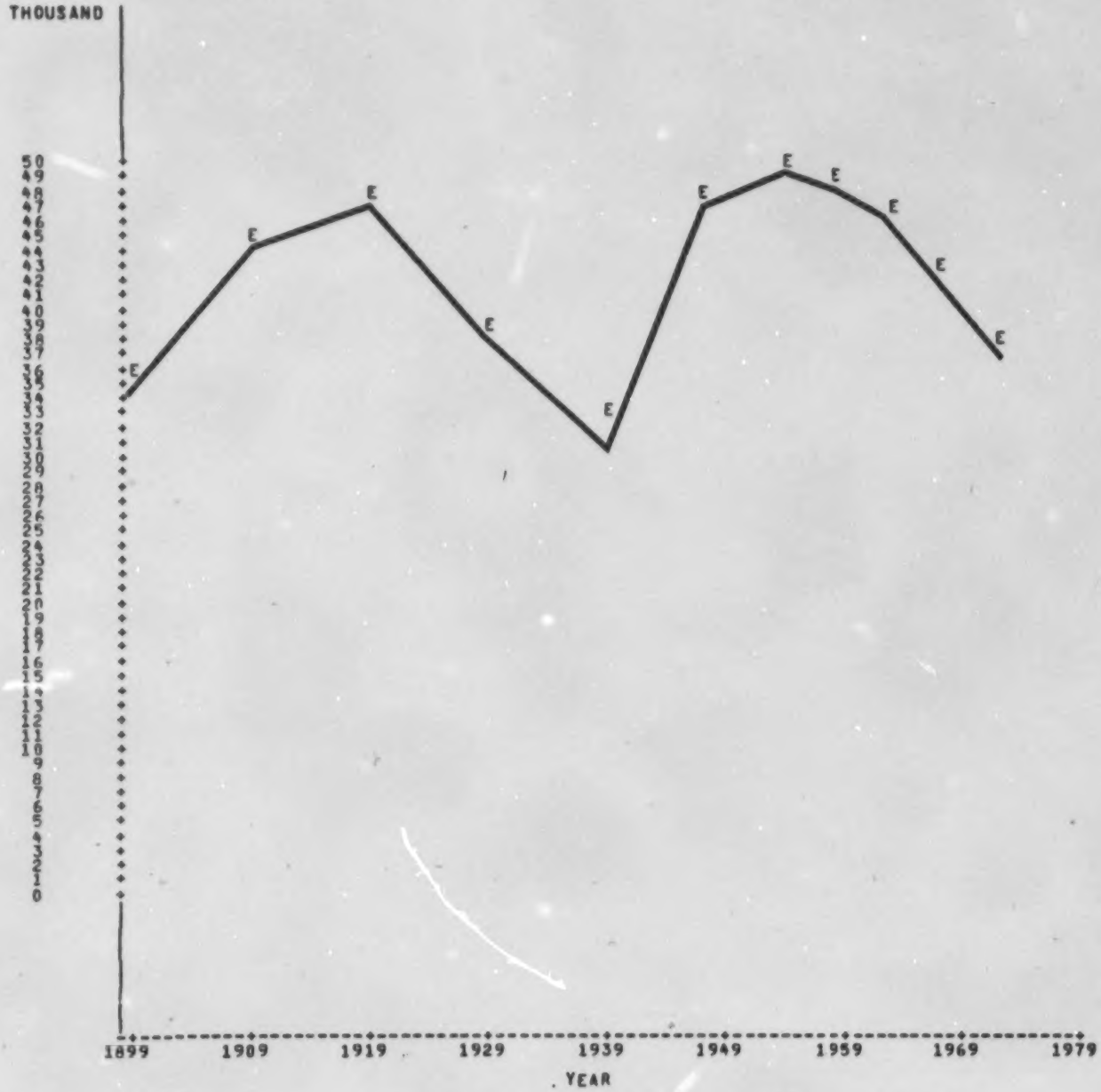
Graph for Table 20

TRENDS IN MANUFACTURING IN NEW YORK STATE:
NO. OF EMPLOYEES PER ESTABLISHMENT



Graph for Table 20

TRENDS IN MANUFACTURING IN NEW YORK STATE:
NO. OF ESTABLISHMENTS



Let us look at industrial production in the same period. A measure used to evaluate what a factory produces is the value added by manufacture. If we place a value on the raw materials going into a factory and place a value on the product the factory sells in the market, the difference between these two sums is the value added to the product by the process of manufacture, or how much the factory has increased the value of the raw material it has used. Table 21 shows two ratios. One is the ratio of the value added to the amount of the total manufacturing payroll in the state and in the nation. From 1919 to 1972 there was a slight net decline in this figure for New York State; each payroll dollar in 1972 produced a little less than it did in 1919. In the nation as a whole there has been a slight increase. But if we look at the right-hand columns, showing the ratio of value added to the number of employees (adjusting this figure for wholesale prices of industrial commodities so that the value of the dollar is constant over time), we see that each employee is now producing about three times the value that he produced in 1919 in New York State (almost four times in the nation as a whole). Industrial production has become much less labor-intensive, with fewer people able to produce the same amount of goods. This new productivity of personnel does not necessarily mean a cheaper product; if we look at the payroll ratio, we see little improvement. If we consider that this smaller number of people is very likely using much more expensive machinery to produce the goods, expense goes up.

But the central fact is that in industry in New York State, as in agriculture, fewer and fewer people are needed to produce the same amount of goods. Production of both food and other goods has become more capital-intensive. It has been pointed out that part of this decrease in production personnel is illusory, since many people not in factories or farms work at jobs vital to agriculture and industrial production. That is, the world of jobs has become

Table 21

Labor Intensity of New York State Industry, 1919 to 1972

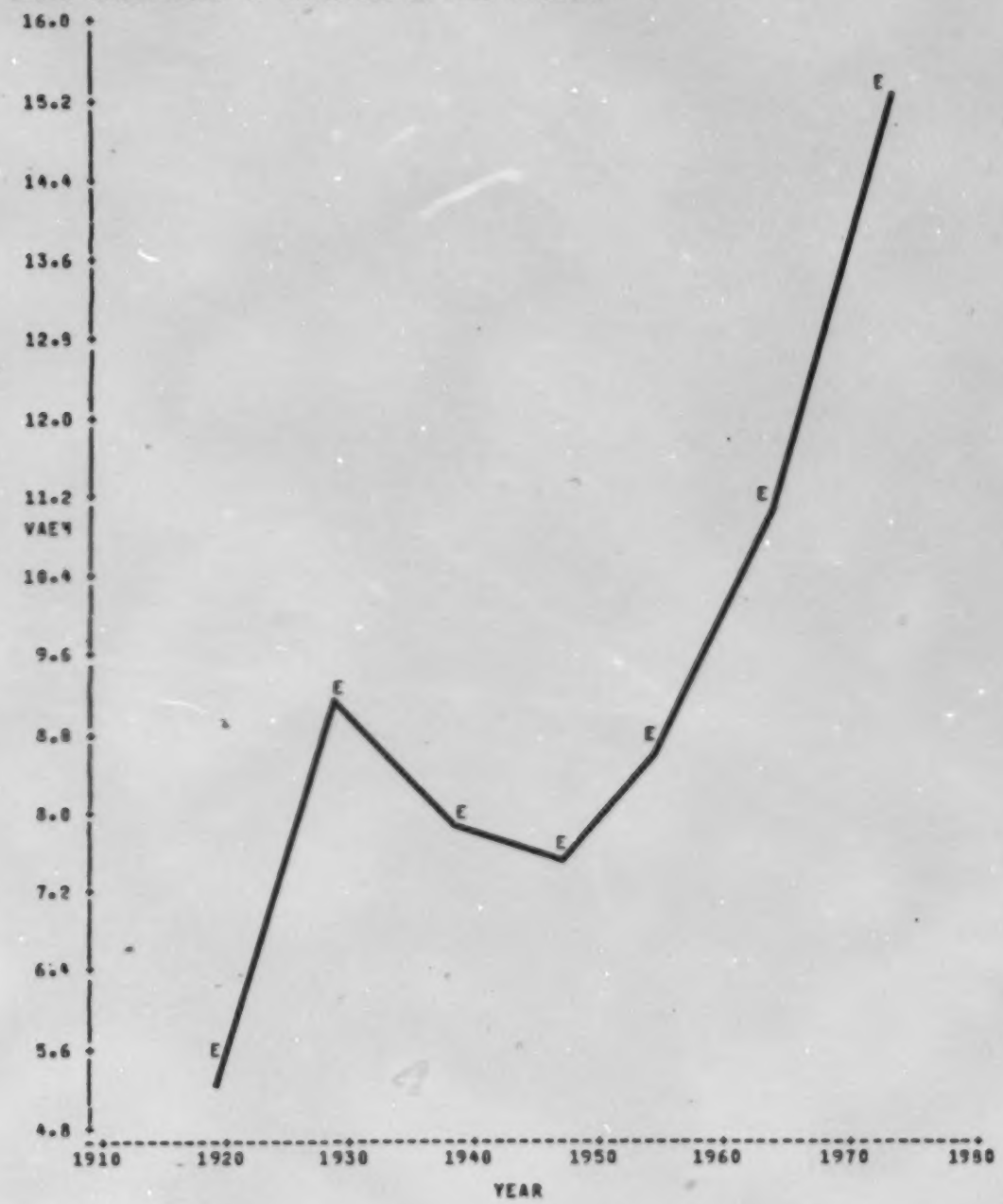
	Ratio of Value Added to Manufacture to Payroll in Manufacture		Ratio of Value Added to Manufacture in Real Money to Number of Employees in Manufacturing* (thousands)	
Year	New York	United States	New York	United States
1919	2.691	1.9185	5.576	4.230
1929	3.015	2.1416	9.254	6.516
1939	2.871	1.9272	8.058	5.936
1947	1.831	1.8715	7.688	7.341
1954	1.828	1.8588	8.774	8.800
1963	1.732	2.0591	11.146	12.496
1972	1.874	2.2066	15.349	16.650

Source: U.S. Department of Commerce, Bureau of the Census, Census of Manufactures, 1900-1972.

*Adjusted for wholesale price of industrial commodities, U.S. Government, Washington, D.C., Economic Report of the President, January, 1977.

Graph for Table 21

VALUE ADDED/NUMBER OF EMPLOYEES IN MANUFACTURING = E



much more specialized. Another fact is that this declining labor intensity of production has enabled many of the rest of us to work at performing new functions for the others, providing all kinds of goods and services that enable us to live more comfortably. But part of the story of these dramatic decreases in the numbers of people needed to produce goods at the same time that employment was rising is that until now New York and the rest of the nation have provided a steadily expanding population and thus a steadily expanding market and economy. Population here is expanding no longer. Other areas of the country are producing their own goods. New adjustments will be called for in the future to adjust production and jobs to relatively stable or declining markets. Some adjustments have already been made, such as New York City's specialization in finance, communications, business services, education, and medicine. In the past, New York has adjusted its economy to many dramatic changes in the structure of agriculture, the structure of industrial production, and population and work force changes and has shown strength and stability in its ability to adjust, but new strategies may be called for in the future.

The Market for New York State's Production

What is the market for New York State agricultural and industrial products? More specifically, are we producing for local or regional consumption or for export? In this case, we would like to be able to determine not only export from the United States, but export from New York to other areas of the United States. To what extent are New Yorkers producing for New Yorkers, or at least Northeasterners, as against the rest of the country or the world? If the market for goods is local or regional, jobs are largely dependent upon nearby population trends. If goods are consumed at a distance, then population is less of a problem.

In 1972 New York State was third highest in the nation (after Michigan and Ohio) on the value of its manufactured goods exported from the United States. Its leading exports to other countries were nonelectrical machinery, instruments, electrical equipment, transportation equipment, and chemicals. Some of these are also important as exports from New York to other parts of this country as well.[7]

Until relatively recent years, we had no good information on the internal marketing of goods within the United States, but since 1958 the United States Census of Transportation Commodity Transportation Survey has given us precise information on this subject which formerly depended on subjective classification, estimates, intimate knowledge of particular industries, and the like. In recent years the survey has omitted small industries, since they are so large in number and yet account for so small a proportion of goods that are not consumed locally. In the United States, establishments with fewer than 20 employees produced 4 percent of the goods in 1958, and most of this was for local use. Therefore, the survey now samples industries with 20 employees or more, since they are of a large enough size to ship some portion of their goods outside of their own locale. The survey tells us what proportion of the tonnage in a particular industry is shipped what distance. Suppose we choose 500 miles as a possible way to discriminate goods shipped out of the area from goods consumed close to the place of production of all processed goods produced in New York in 1972, only 13.7 percent of total tonnage was shipped 500 miles or more. This figure omits the smaller companies, and if they were included the percentage would be smaller.

On the whole, then, New York State is largely producing for its own or for nearby population, for state or Northeast regional consumption. The average length of haul by all means of transport--rail, motor, private truck, air, or water--was 275 miles. Thirty-nine percent of all tonnage was shipped

under 100 miles. Figures are not available for shipment of fresh produce. Some may be shipped a considerable distance, but again much is consumed locally. This means that New York production is and is likely to remain very sensitive to population changes in New York State and its immediate environs, whether from migration, births or deaths, and also to levels of spending in the area.

If we look at particular areas of the state, the Commodity Transportation Survey reports on three: Area 3, the New York Standard Metropolitan Statistical Area, including New York City and five other counties, which has been referred to here as downstate; Area 9, including metropolitan Syracuse, Rome, Albany, Schenectady, and Troy; and Area 10, including metropolitan Rochester and Buffalo. Area 3 shipped 70.5 percent of its goods less than 200 miles in 1972; Area 9 shipped 53.9 percent of its goods less than 200 miles; and Area 10 shipped 47.3 percent of its goods less than 200 miles.

Tables 22, 23 and 24 show for each of these areas the proportion of goods in the major types of production that have been shipped 500 miles or more at three time periods, 1963, 1967 and 1972. In Area 10 (Rochester and Buffalo) only one industry ships over 35 percent of its goods 500 miles or more--rubber and miscellaneous plastic products. In Area 9 only one industry, machinery except electrical, ships over 35 percent of its tonnage 500 miles or more. In the metropolitan New York area, Area 3, a number of such industries exist: apparel, rubber and miscellaneous plastic products, leather, primary metal products, fabricated metal products, electrical and non-electrical machinery, and miscellaneous manufacturing products.

How are these industries faring on employment? In two of them, rubber and plastics and electrical machinery, employment has risen since 1947 (Table 25); in two more, non-electrical machinery and fabricated metal products, employment has been fairly steady; in the rest employment has been decreasing.

Table 22

Percent of Tons of Shipments Shipped 500 miles or more, 1963, 1967, and 1972, Area 10, Buffalo and Rochester

	1963*	1967*	1972	**
TOTAL	12.1	9.4	12.9	23
SIC No.				
20 Food and kindred products	8.0c	6.7c	6.2	25
26 Pulp paper and allied products	14.2d	17.1c	9.6	29
28 Chemicals and allied products	13.7c	9.8c	12.3	17
30 Rubber and miscellaneous plastics products	35.8d	34.3b	40.0	29
33 Primary metal products	5.3a	9.5b	12.7	8
34 Fabricated metal products except ordinance, machinery and transport	18.0c	20.4b	31.3	10
35 Machinery except electrical	41.9d	38.6b	30.6	16
36 Electrical machinery equipment and supplies	46.4c	27.1c	27.7	13

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Transportation, Commodity Transportation Survey (various years).

*Code letter indicates sampling variability as follows: a = 0-9%, b = 10-19%, c = 20-29%, d = 30-39%, e = 50% or more.

**Sampling variability.

Table 23

Percent of Tons of Shipments Shipped 500 Miles or More, 1963, 1967, and 1972, Area 9: Syracuse, Albany, Rome, Utica, Troy, Schenectady

	1963*	1967*	1972	**
TOTAL	26.2	17.0	17.2	8
SIC No.				
20 Food and kindred products	7.8e	3.4d	3.7	32
26 Pulp paper and allied products	35.4e	32.2c	26.7	11
33 Primary metal products	43.4b	30.8c	29.2	11
34 Fabricated metal products except ordinance, machinery and transport	5.6e	--	27.2	32
35 Machinery except electrical	50.9c	56.4b	61.8	15

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Transportation, Commodity Transportation Survey (various years).

*Code letter indicates sampling variability as follows: a = 0-9%, b = 10-19%, c = 20-29%, d = 30-39%, e = 50% or more.

**Sampling variability.

Table 24

Percent of Tons of Shipments Shipped 500 Miles or More, 1963, 1967, and 1972, Area 3, New York City

	1963*	1967*	1972	**
TOTAL	15.7	27.3	18.2	12
SIC No.				
20 Food and kindred products	9.1b	13.8b	5.8	8
23 Apparel and other finished testile products	49.4b	50.0b	54.3	19
25 Furniture and fixtures	33.5d	36.8d	19.8	30
26 Pulp paper and allied products	12.6e	34.5c	22.0	26
28 Chemicals and allied products	21.7b	28.4b	22.5	33
30 Rubber and miscellaneous plastics products	29.6e	45.3d	37.4	39
31 Leather and leather products	45.2d	52.6c	53.1	43
33 Primary metal products	27.7c	25.1b	35.1	18
34 Fabricated metal products except ordinance, machinery and transport	19.8c	28.8c	39.8	22
35 Machinery except electrical	28.8c	--	80.3	24
36 Electrical machinery equipment and supplies	44.3c	45.3c	50.9	35
39 Miscellaneous products of manufactures	55.5d	46.2c	56.1	39

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Transportation, Commodity Transportation Survey (various years).

*Code letter indicates sampling variability as follows: a = 0-9%, b = 10-19%, c = 20-29%, d = 30-39%, e = 50% or more.

**Sampling variability.

Table 25

Number of Employees by Place of Employment
in "Export" Industries, New York State,
1947 to 1972

SIC No.		Thousands of Employees by Place of Employment 1947	1954	1958	1967	1972
23	Apparel and other finished textile products	382.8	379.9	342.2	290.5	248.1
30	Rubber and Miscellaneous plastics products	9.0	23.6	25.4	33.4	37.3
31	Leather and leather products	69.6	61.4	58.7	48.2	35.8
35	Machinery except electrical	137.6	142.5	139.1	150.0	135.2
36	Electrical machinery equipment and supplies	101.9	125.3	138.7	215.8	161.3
39	Miscellaneous products of manufactures	104.8	161.6	120.9	89.7	79.1
33	Primary metal products	77.2	74.4	68.3	72.9	56.4
34	Fabricated metal products except ordinance, machinery and transport	88.6	93.8	88.3	95.8	93.5

Source: U.S. Dept. of Commerce, Bureau of the Census, Census of Manufactures (various years).

The latter include apparel, leather, primary metal products, and miscellaneous manufacturing. In the last period, 1967 to 1972, electrical machinery and equipment suffered a decline.

These facts--notably that a large part of New York State production is consumed nearby and that employment in several of the industries shipping out of the Northeast has been falling--call for thought and probably imply future adjustments. These trends may continue to be counterbalanced by growing employment in many professional, scientific, business, and financial services and specialties that New York "exports." These latter have been the healthy areas of growth for which New York has had special advantages, and it should perhaps look at how to support and strengthen areas of employment in which it continues to be strong and for which it has such advantages. New York State also needs to look at local production and consumption so that support exists for industries producing regional goods; if goods consumed by Northeasterners or New Yorkers are produced here, there ought to be advantages in access to them and in costs reduced by transportation savings. We need to be sure that industries now successfully serving local or regional markets have the support they need to provide these advantages. New York, however, like other areas of the nation, is self-sufficient in many ways and probably will continue to be. In fact, New York still has important export products in which employment has been increasing. It has adjusted in the past to westward and southward movement of people and production, to changes in the work force, to decentralization of services, to increasing specialization of industry and employment, and to concentration of production of food and other goods; now it needs to consider how best to meet changes that are coming down the road in the future.

Summary

From 1880 to 1977, the overall picture of employment in New York State has been one of reasonable stability. The proportion of the population of the state that is employed and supports the rest of the population has varied little throughout the state during the whole period, with the exception of the anticipated dip in the depression of the '30s. New York's proportion of all United States employment and of all United States population have also varied little. New York's proportion of all United States personal income has decreased, but it is still slightly larger than the state's share of the population, and New York's per capita income is still higher than that of the nation as a whole.

Within this general stability there have been great changes in sectors of employment. Agricultural employment has declined steadily and dramatically. The level of manufacturing employment increased dramatically from 1880 to 1910 and has been relatively steady until recent years except for a drop during the depression years. This means that relative to population there has been a steady decline in the rate of manufacturing employment for many decades and an absolute decline very recently.

Of particular note is the area of finance, insurance, and real estate and business services. In this combined area of employment, jobs have nearly doubled in the 30 years from 1940 to 1970. This change symbolizes much that has been going on in the area of employment change, from "hardware" employment to "software," to business and business services, education, medical services, communications and all manner of religious and other service organizations.

If we divide the state into upstate and downstate, these areas differ in important ways. Downstate includes New York City, Nassau, Putnam, Rockland, Suffolk and Westchester Counties. For example, jobs in manufacturing

declined by more than 240,000 in the downstate area just from 1960 to 1970, while they increased slightly in number in the upstate area. After 1970 there were decreases both upstate and downstate that seemed to have leveled off from 1975 to 1977.

The major functions of New York City have long since changed. Formerly, it was notable as a manufacturing center, but its major functions today are in business, medical, educational and other services of a complex and technical nature. In these areas it serves national and international clienteles.

There have also been marked changes in the composition of the work force. From 1900 to 1970 the proportion of females employed increased by over 10 percent, and the proportion of the aged (over 65) in the population more than doubled. However, one of the most marked differences was the proportion of black people employed. Employment among blacks peaked in 1910 when 62.6 percent were employed, while in 1970 only 35.3 percent were employed. The second major change was in the proportion of persons 16 years or over in school. The proportion of adults in school in 1970 as a percent of the total population was 7.7 percent. This is quite small but is many times the two-tenths of one percent in school in 1900.

The increasing level of education of the work force symbolizes the major change in the nature of jobs over the period. Production, both agricultural and manufacturing, has become decreasingly labor-intensive. In manufacturing in 1972 each employee produced three times the value (in real dollars) that each employee produced in 1919. In agriculture, far fewer people with increasing scientific and mechanical help now produce more food on less land and on fewer farms.

New York has adjusted well and has maintained a steady level of employment in the face of vast changes in the array of jobs available and in the array of workers to fill them. The increasing capital intensity of production

in both industry and agriculture force us to conclude that until 1970 such adjustments were aided by a rapidly expanding economy as well as a change to "software" products. Information on the present structure of the New York economy and the nature of "exports" as compared with regionally consumed goods compels us to conclude that future changes cannot rely on economic expansion. New York manufacturing is mainly for regional use. New York is now sharing population and jobs with the rest of the country to a much greater extent. The role New York City plays as a national center has long since changed in nature.

Footnotes

[1]U.S. Bureau of the Census, Statistical Abstract of the U.S., 1977, p.496.

[2]See Robert M. Lichtenberg, One-Tenth of a Nation (Cambridge: Harvard University Press, 1960), especially pages 56 ff., "The External-Economy Industries"; and National Planning Association, Industrial and Commercial Activities: An Overview (Albany, N.Y.: State Office of Planning Coordination, 1969), 30 ff., "Apparel and Related Products."

[3]New York State Select Committee on the Economy, Industry in New York: A Time of Transition, New York State Legislative Document (1974), No. 12.

[4]Richard N. Boisvert, "Changing Employment Patterns in New York," Journal of the Northeastern Agricultural Council, Vol. V, No. 1, p.101.

[5]For example, Kirkpatrick Sale, Power Shift: The Southern Rim (N.Y.: Vintage Books, 1976). An especially good short description is W. David Lewis, "Technology, Community and Humanity: The Big Picture," in W. David Lewis and B. Eugene Griesman, editors, The Southern Mystique (University, Alabama: University of Alabama Press, 1977).

[6]Joachim Singelmann, "The Sectoral Transformation of the Labor Force in Seven Industrialized Countries, 1920-1970," American Journal of Sociology, Vol. 83, No. 5 (March 1978):1224-1234, and Joachim Singelmann, From Agriculture to Services: The Transformation of Industrial Employment (Beverly Hills: Sage Publications, 1978).

[7]New York State Department of Commerce, Exports of New York Manufactures, 1972, Research Bulletin No. 41, December, 1975, pp. 2-5.

APPENDIX 1

Table 1

Number of Persons Employed in Transportation, Communication and Public Utilities, by Residence, New York State, 1940 to 1970

Year	Number (thousands) Employed in Transportation Communication and Public Utilities		
	Downstate*	Upstate	Total State
1940	294.2	126.6	420.8
1950	384.8	155.8	540.7
1960	392.6	141.3	533.8
1970	435.5	143.7	579.2

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 2

Number of Persons Employed in Services,
New York State, by Residence, 1940 to 1970

Year	Number (thousands) Employed in Services		
	Downstate*	Upstate	Total State
1940	822.0	335.0	1,157.0
1950	857.4	363.4	1,220.8
1960	1,090.9	476.9	1,567.8
1970	1,400.5	678.0	2,078.5

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 3

Number Employed in Finance, Insurance and Real Estate, New York State, by Residence, 1940 to 1970

Year	Number (thousands) Employed in Finance, Insurance & Real Estate		
	Downstate*	Upstate	Total State
1940	261.3	42.5	303.8
1950	286.6	54.3	341.0
1960	352.7	75.3	428.0
1970	437.1	95.8	532.9

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 4

Number of Persons Employed in Wholesale and Retail Trade, New York State, by Residence, 1940 to 1970

Year	No. (thousands) Employed in Wholesale & Retail Trade		
	Downstate*	Upstate	Total State
1940	722.4	283.6	1,006.0
1950	897.0	364.2	1,261.2
1960	884.5	388.0	1,272.5
1970	929.4	478.4	1,407.8

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 5

Number of Persons Employed in Contract Construction, New York State, by Residence, 1940 to 1970

Year	No. (thousands) Persons Employed in Contract Construction		
	Downstate*	Upstate	Total State
1940	172.7	77.5	250.1
1950	204.4	112.7	317.1
1960	216.8	129.3	346.0
1970	199.4	140.2	339.6

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 6

Number of Persons Employed in Government,
New York State, by Residence, 1940 to 1970

Year	Number (thousands) of Persons Employed in Government		
	Downstate*	Upstate	Total State
1940	150.9	69.5	220.3
1950	207.4	93.4	300.9
1960	237.7	128.2	366.0
1970	280.4	148.7	429.1

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table 7

Number of Persons Employed in Agriculture, Forestry and Fisheries, by Residence, New York State, 1940 to 1970

Year	Number (thousands) Employed in Agriculture		
	Downstate*	Upstate	Total State
1940	20.7	199.0	219.7
1950	22.7	158.0	180.6
1960	20.7	107.1	127.8
1970	19.6	74.0	93.6

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Employment by Industry, 1940 to 1970.

*Downstate includes New York City and Nassau, Putnam, Rockland, Suffolk and Westchester Counties.

APPENDIX 1

Table A

New York State Population
by Race, 1900 to 1970

Year	Number of Persons (thousands)		
	Total Population	Black Population	Percent Black
1900	7,268.9	99.2	1.4
1910	9,113.6	134.2	1.5
1920	10,385.2	198.5	1.9
1930	12,588.1	412.8	3.3
1940	13,479.1	571.2	4.2
1950	14,830.2	918.2	6.2
1960	16,782.3	1,417.5	8.4
1970	18,237.0	2,168.9	11.9

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population, 1970, Part 34, Section 1, New York, Tables 17 and 18. Maurice Bond, Changes in N.Y.S. Agriculture 1850-1950 and Changes in N.Y.S. Agriculture 1850-1964, Cornell University, Ithaca, New York.

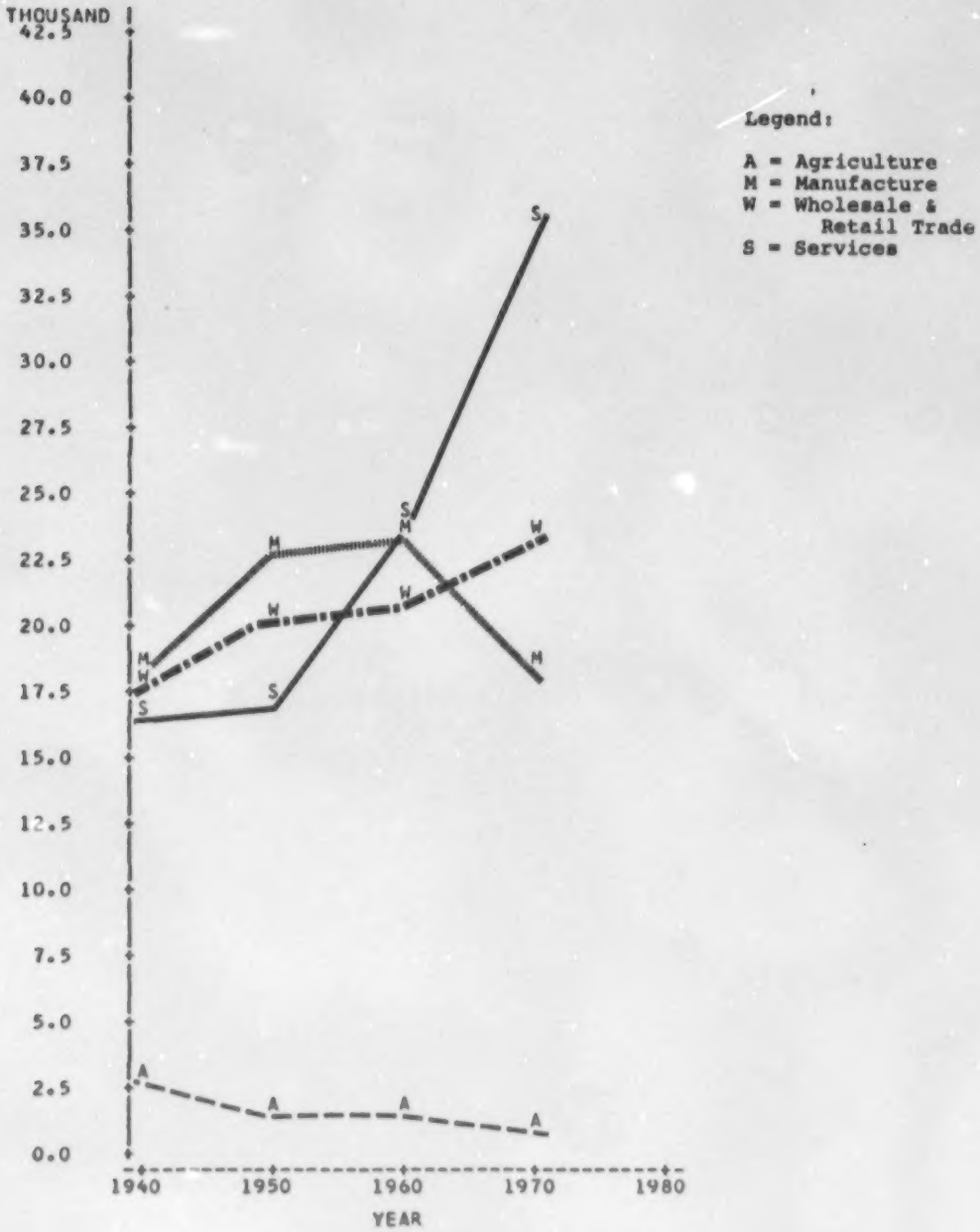
APPENDIX 2

County Tables

Appendix 2 consists of a page for each of the upstate counties arranged in alphabetical order. For each county, the page shows the proportion of the population employed each decade from 1940 to 1970. A graph shows the absolute number of persons employed in each of four sectors from 1940 to 1970: agriculture, manufacturing, wholesale and retail trade, and services.

The number and the size of farms in acres is given from 1900 to 1974. The value added by manufacture is shown as a ratio to the total manufacturing payroll in dollars from 1919 to 1972. Value added is shown in constant dollars as a ratio to the number of persons employed in manufacturing for the same years. These data are skeletal compared with the data available on the state as a whole, but they will serve as a basis for making some comparison of what has been happening in each county with what has been happening in the state as a whole. In many respects most counties are similar to the state as a whole, but the sectors of employment in particular differ according to the resource base in the county, the nature of its terrain, its location with reference to cities, highways and the like, and many individual factors. Often persons concerned with particular counties or areas of the state have to extrapolate from state level data. Such often apply mainly to New York City. The intention is that these data will make it possible at least in some respects to see whether trends prevailing in the state as a whole apply to each county in particular.

1940	1950	1960	1970	1980
Percent of Population Employed				
38.5	41.6	39.4	42.1	

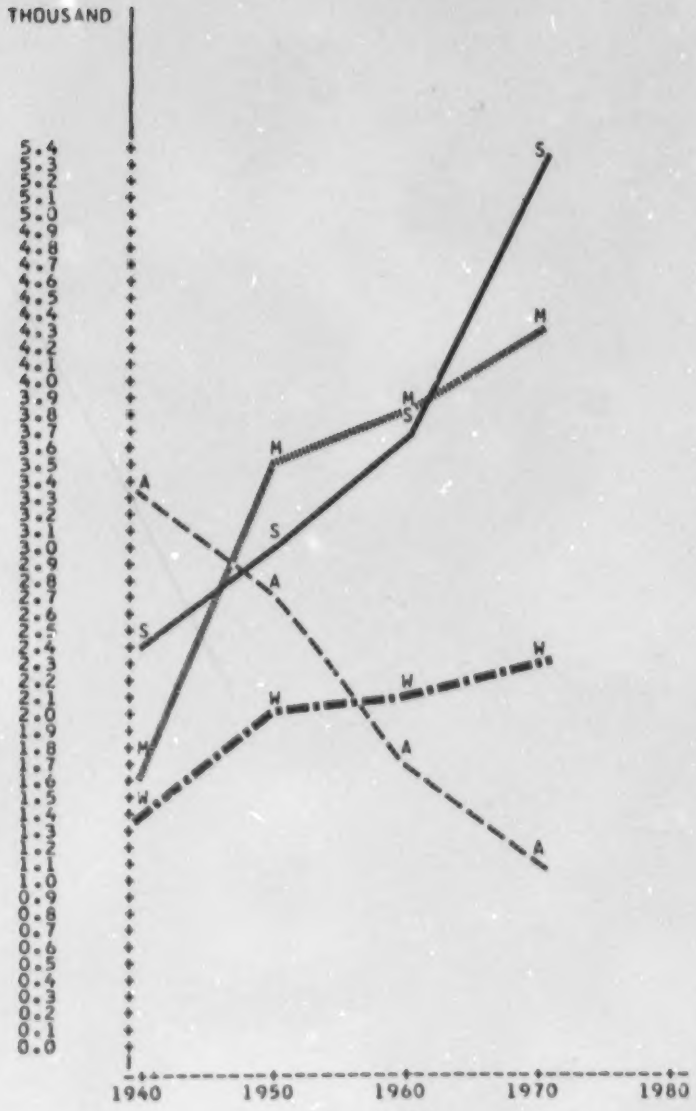


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3281	3146	2946	1927	2177	1453	964	574	448
Size of Farm in Acres								
	92	94	105	95	111	141	150	168

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.07	2.25	3.08	1.94	1.73	1.96	1.94
Value Added Per Employee*						
3.65	6.39	8.16	7.49	8.32	12.39	15.48

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
31.8	34.1	33.4	35.6	



Legend:

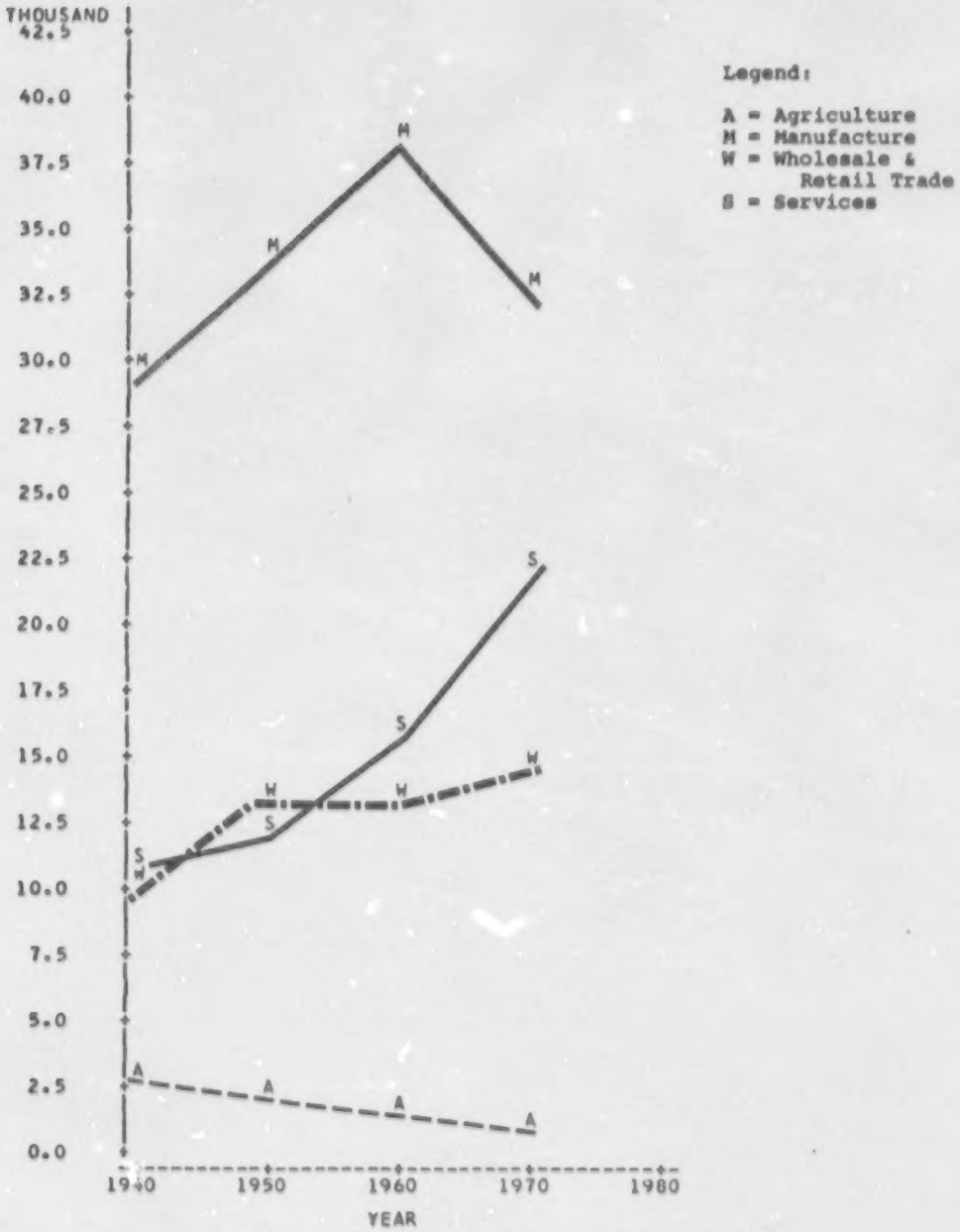
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5082	4937	4405	3375	3018	2604	1718	1112	986
Size of Farm in Acres								
	119	129	142	147	160	198	229	239

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.37	1.33	2.97	1.83	1.99	1.90	1.90
Value Added Per Employee*						
4.24	3.46	9.37	6.68	9.45	11.96	14.53

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
38.6	40.5	39.4	39.6	

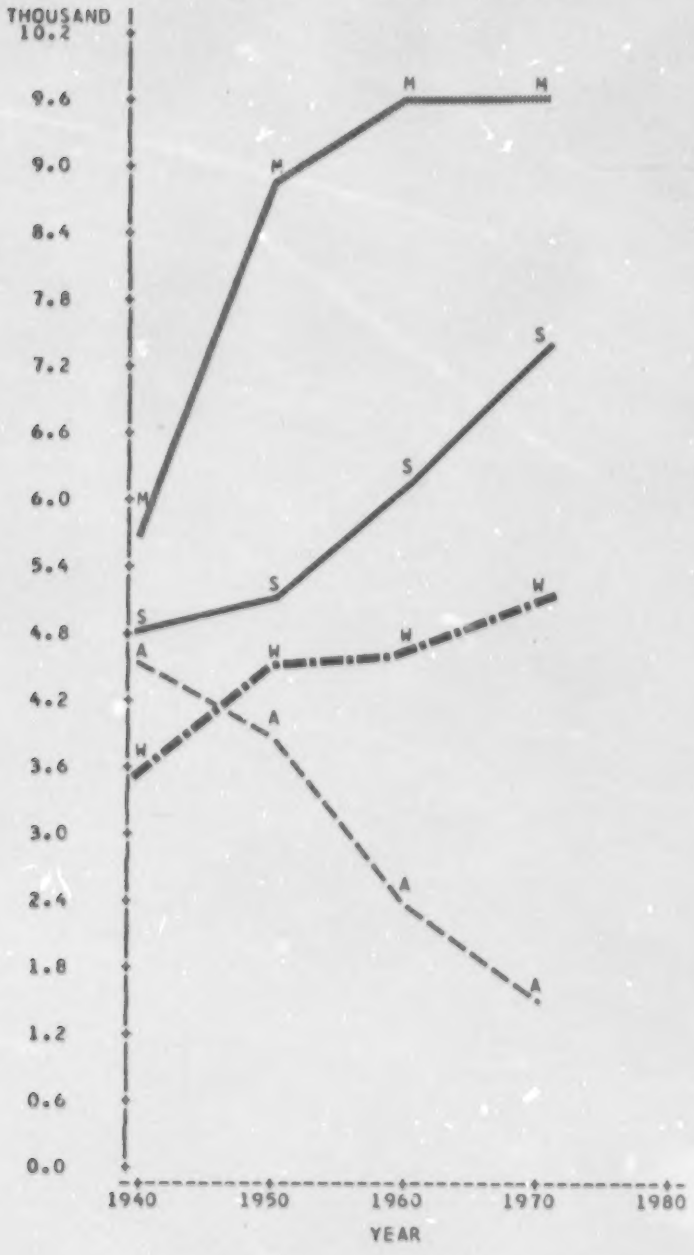


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
4410	4017	3594	3104	2851	2345	1424	765	643
Size of Farm in Acres								
	102	107	108	114	126	170	201	228

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.99	2.12	2.03	1.51	1.68	1.22	1.93
Value Added Per Employee*						
4.07	5.49	5.16	6.31	7.81	7.81	16.35

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
33.6	37.2	36.1	36.2	

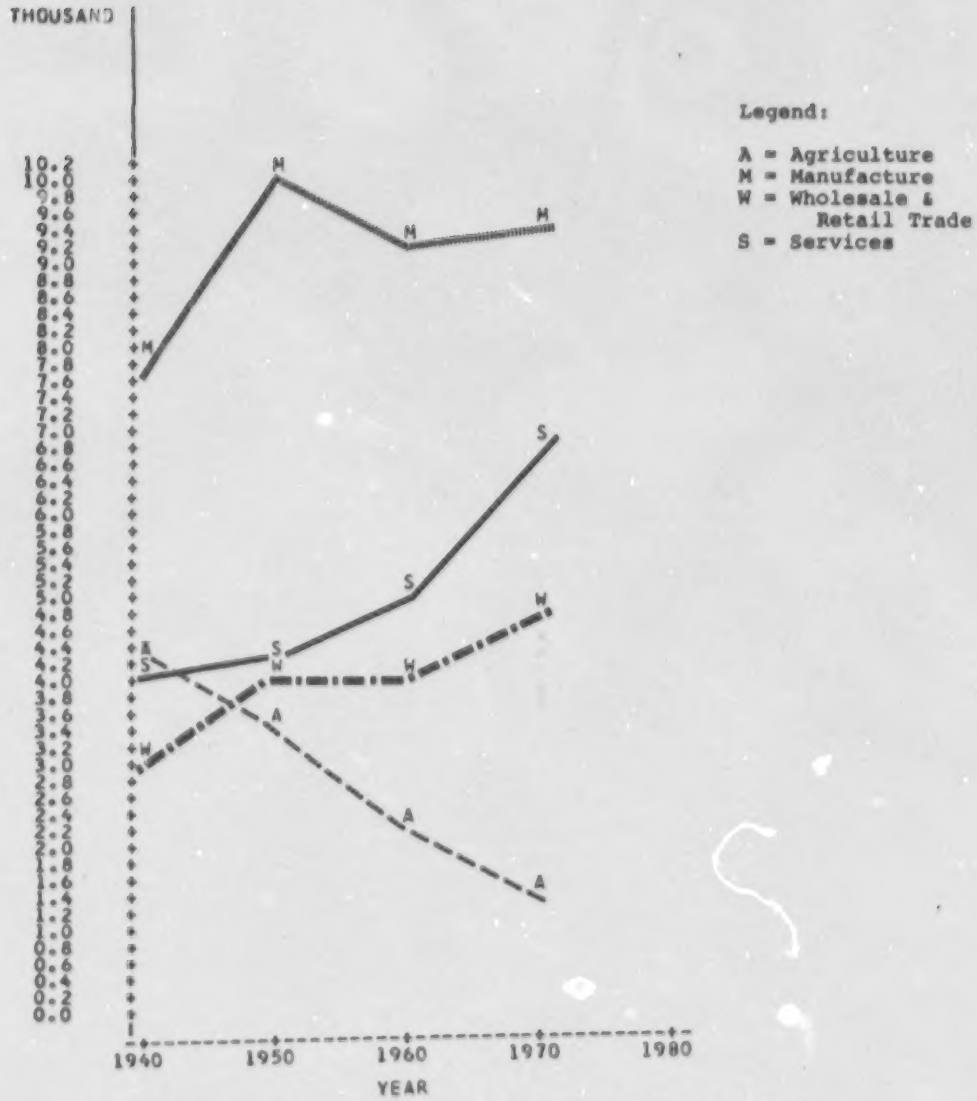


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5976	6017	5305	3999	4124	3508	2254	1475	1220
Size of Farm in Acres								
	111	122	136	130	146	175	200	215

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.00	1.79	2.94	1.89	1.65	1.78	2.04
Value Added Per Employee*						
3.93	4.93	7.62	7.38	7.61	9.89	13.69

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
35.3	38.1	35.4	37.1	



Legend:

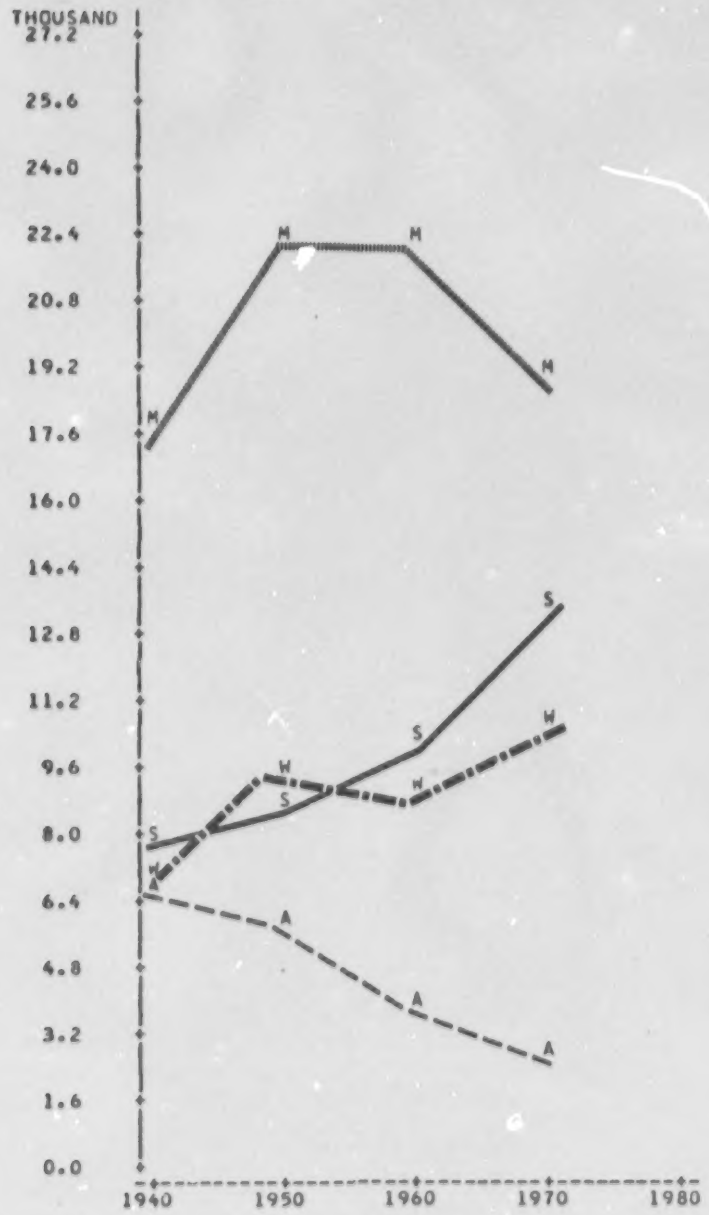
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5039	4785	4297	3865	3359	2934	2093	1495	1267
Size of Farm in Acres								
	86	92	97	105	121	157	186	213

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.40	2.52	2.61	1.74	1.65	1.56	2.32
Value Added Per Employee*						
4.00	6.22	6.39	6.73	7.66	8.91	15.81

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
36.8	40.3	37.1	38.3	

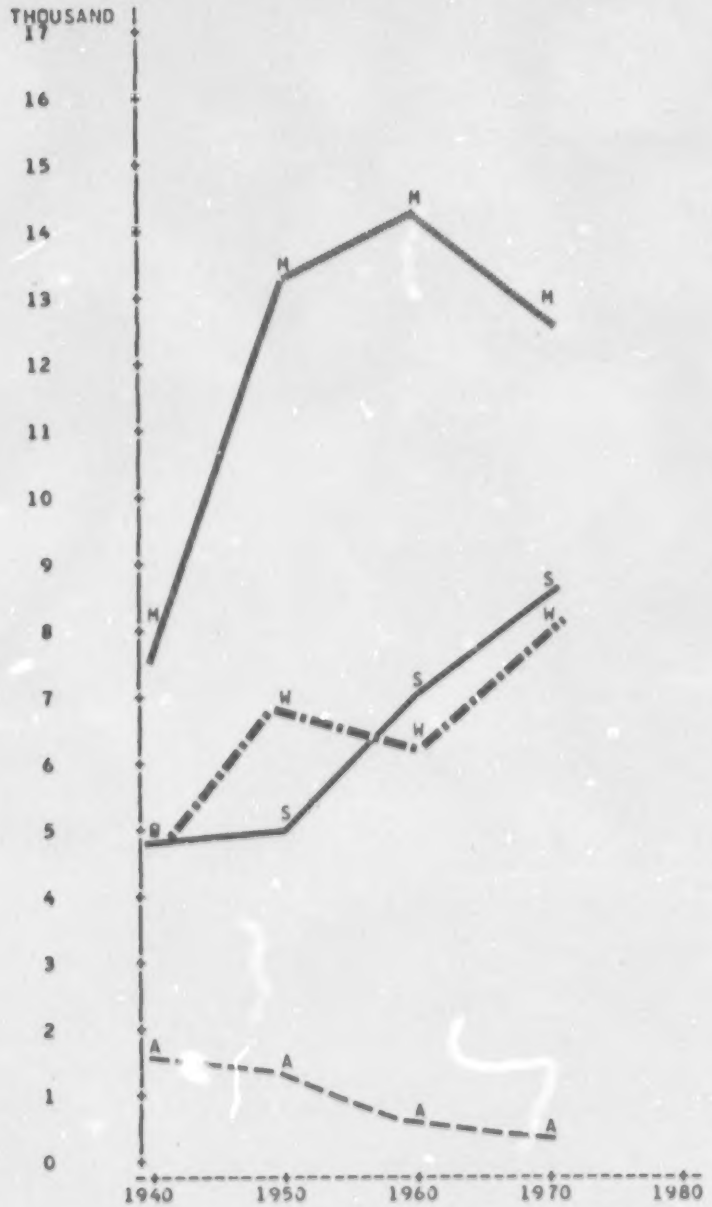


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
7404	7500	7100	6410	5573	5336	3784	2392	2125
Size of Farm in Acres								
	82	84	84	90	94	114	135	150

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.42	2.22	2.54	1.72	1.77	1.68	1.79
Value Added Per Employee*						
4.58	6.51	6.23	6.87	8.42	9.83	13.06

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
34.3	38.4	36.0	37.3	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2438	2193	1945	1565	1508	1280	747	432	390
Size of Farm in Acres								
	103	107	115	112	122	153	209	215

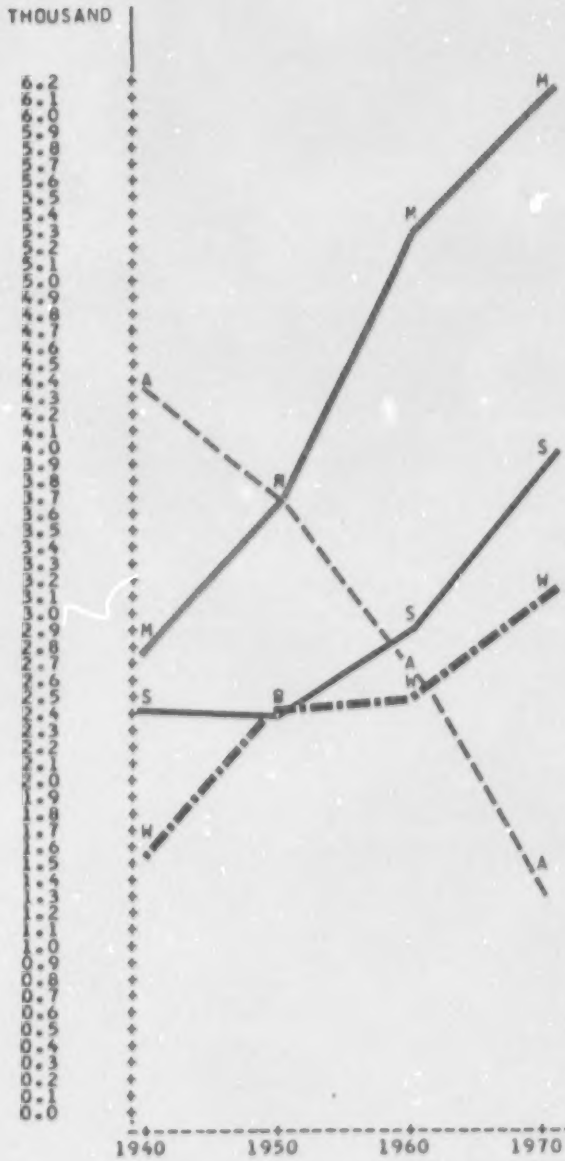
1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.20	2.84	2.25	1.69	2.02	1.86	**
Value Added Per Employee*						
4.28	8.19	6.17	6.44	9.63	11.16	**

*(in thousands)

**Withheld to avoid disclosing figures for individual companies.

36017 Chenango

1940	1950	1960	1970	1980
Percent of Population Employed				
37.1	38.7	37.6	38.4	



Legend:

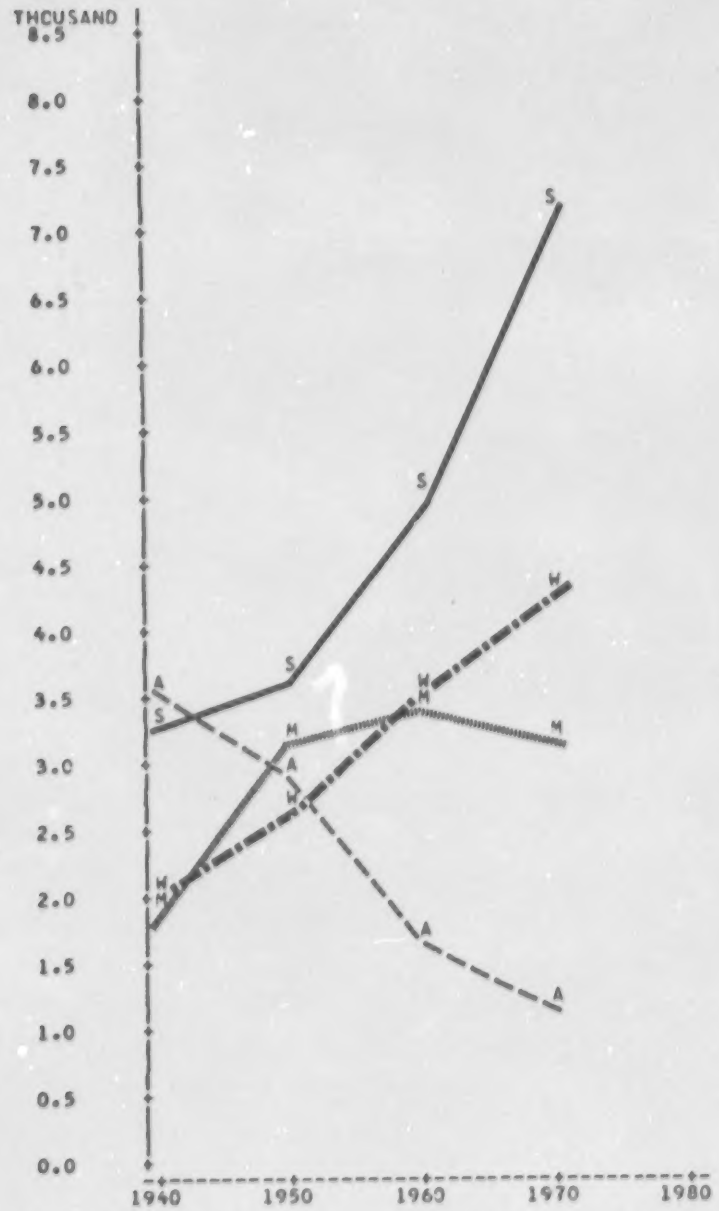
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
4473	4258	3838	3333	3371	2689	1889	1196	1054
Size of Farm in Acres								
	127	134	140	134	155	199	229	247

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.91	4.37	4.01	3.04	2.56	3.14	2.65
Value Added Per Employee*						
4.14	8.99	8.26	9.50	11.06	16.81	17.75

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
29.7	30.4	32.6	34.0	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

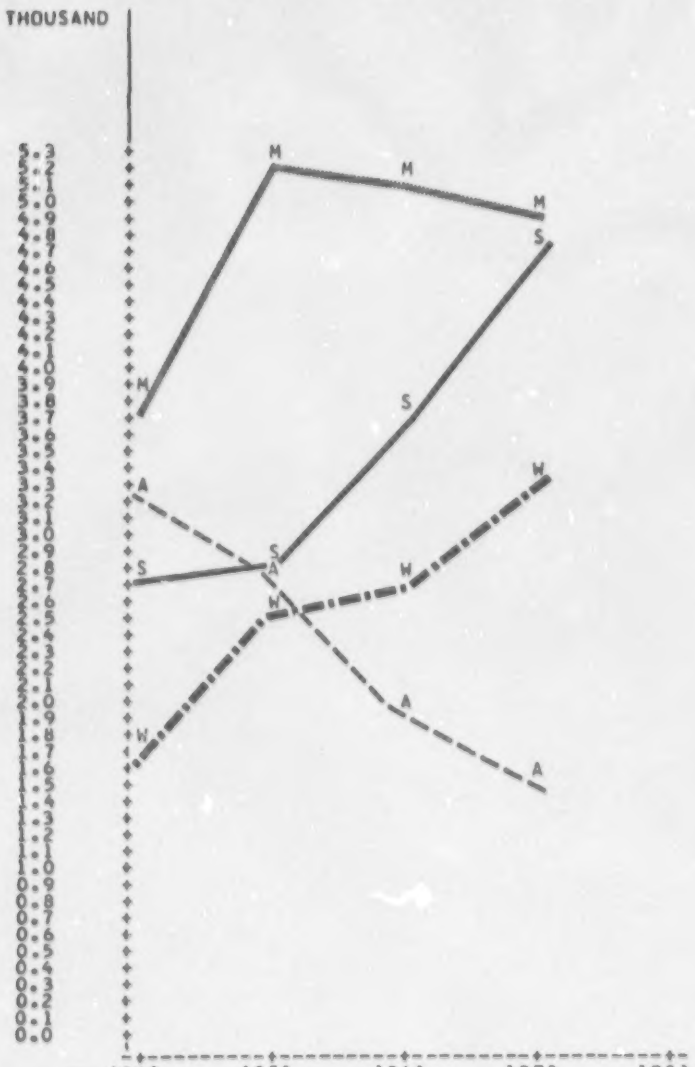
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3764	3608	3402	2852	2753	2275	1494	917	706
Size of Farm in Acres								
	125	131	150	146	176	220	265	286

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.56	2.56	3.12	2.78	2.99	3.29	5.24
Value Added Per Employee*						
4.44	6.29	7.20	9.72	11.80	17.50	38.68

*(in thousands)

36021 Columbia

1940	1950	1960	1970	1980
Percent of Population Employed				
34.9	39.5	37.6	37.9	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

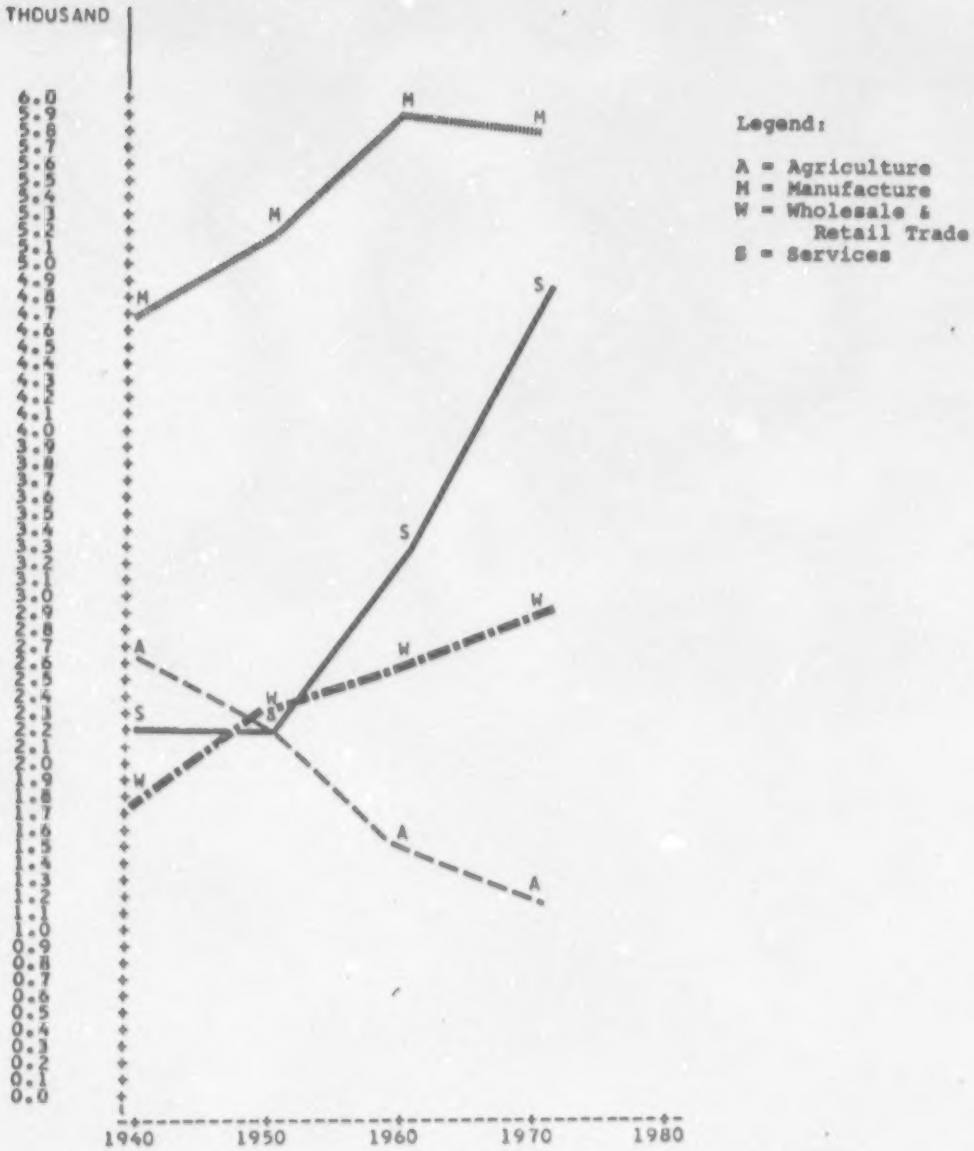
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2944	2963	2580	2144	2153	1692	1235	768	632
Size of Farm in Acres								
	126	132	129	128	154	187	227	247

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.39	2.94	2.45	2.10	2.01	2.23	2.20
Value Added Per Employee*						
4.00	7.60	5.77	7.08	8.24	11.43	14.68

*(in thousands)

36023 Cortland

1940	1950	1960	1970	1980
Percent of Population Employed				
39.6	38.6	38.6	38.7	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

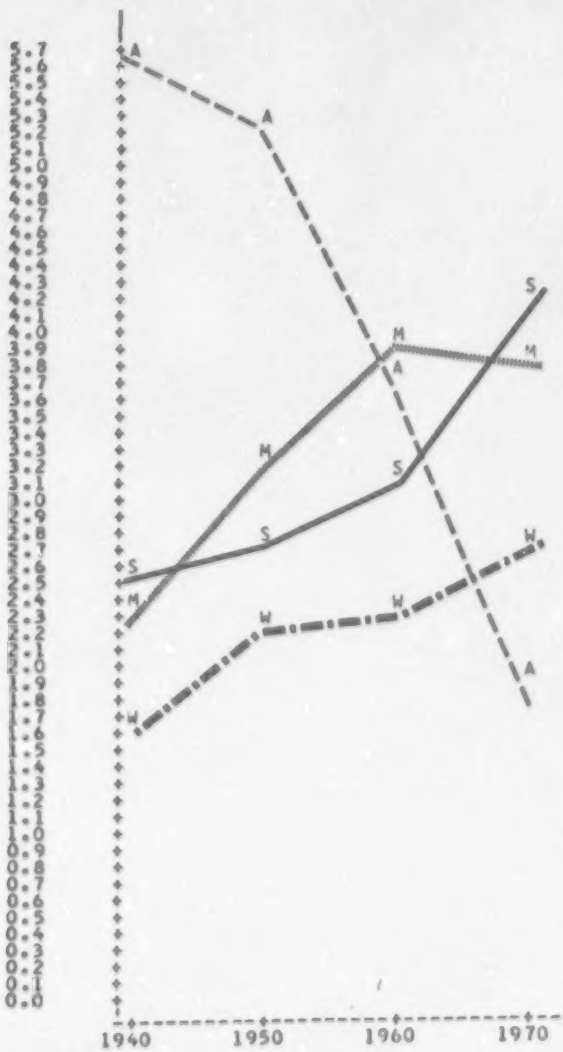
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2754	2610	2315	1968	1787	1414	1117	726	626
Size of Farm in Acres								
	115	122	132	139	169	212	244	276

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.19	3.07	2.11	2.11	2.01	1.96	1.96
Value Added Per Employee*						
3.75	7.29	4.87	7.32	7.73	9.86	11.96

*(in thousands)

36025 Delaware

1940	1950	1960	1970	1980
Percent of Population Employed				
35.6	37.7	37.3	37.0	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

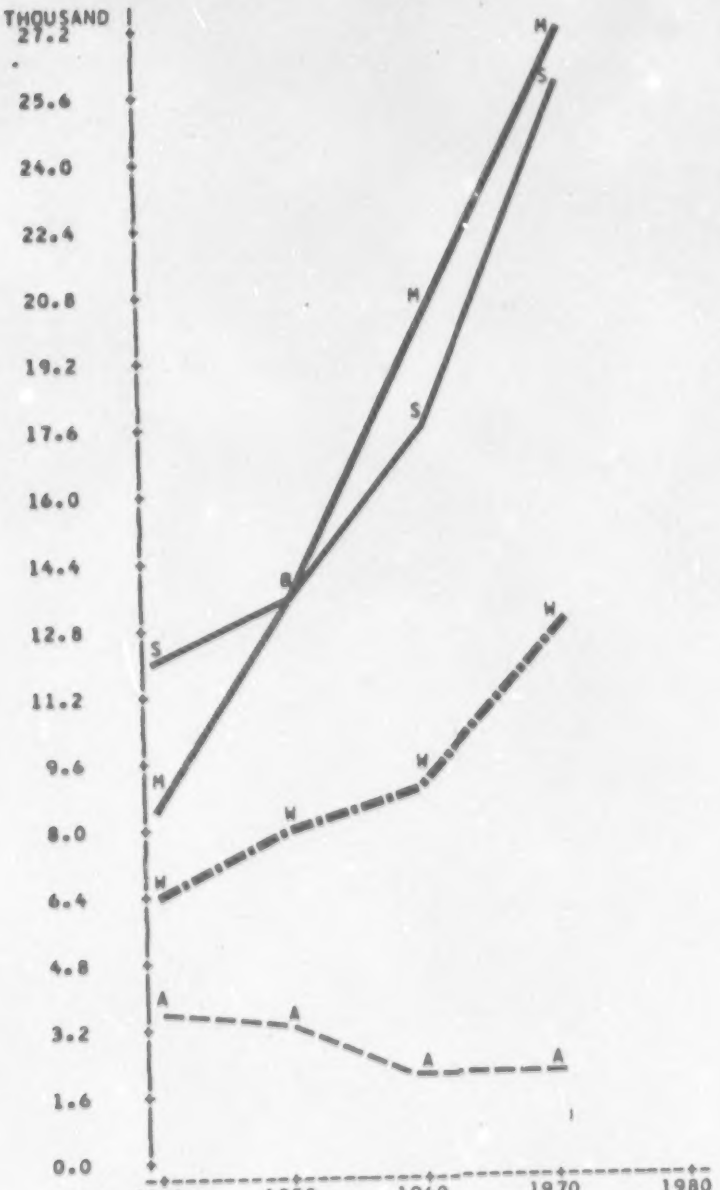
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5232	5044	4613	3956	3738	3234	2468	1456	1112
Size of Farm in Acres								
	152	162	172	172	195	228	250	277

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.33	2.73	2.45	1.66	1.60	1.64	1.85
Value Added Per Employee*						
3.52	6.66	6.36	6.24	7.36	9.21	12.94

*(in thousands)

36027 Dutchess

1940	1950	1960	1970	1980
Percent of Population Employed				
33.3	36.4	35.2	37.6	



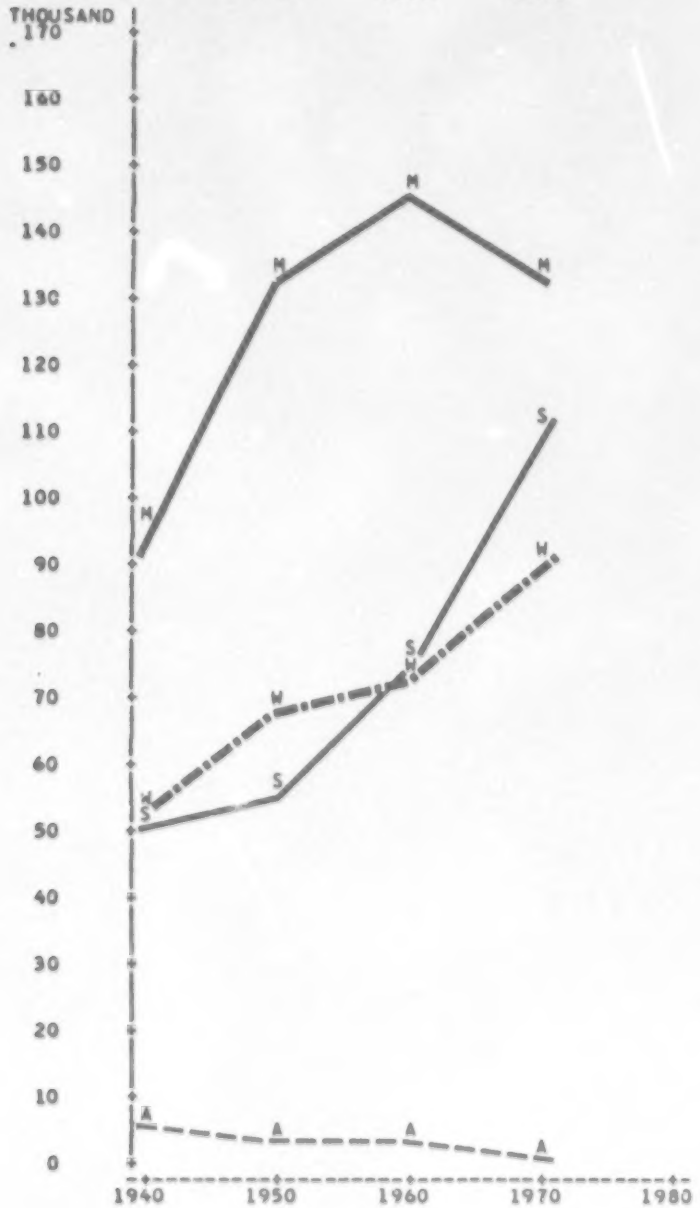
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3537	3600	3114	2190	1958	1729	1027	683	568
Size of farm in Acres								
	129	140	154	157	176	232	237	239

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.66	2.60	2.88	1.68	1.64	.84	1.70
Value Added Per Employee*						
4.56	6.49	6.51	6.78	8.93	6.98	16.76

*(in thousands)

36029 Erie

1940	1950	1960	1970	1980
Percent of Population Employed				
33.8	39.0	36.6	38.3	



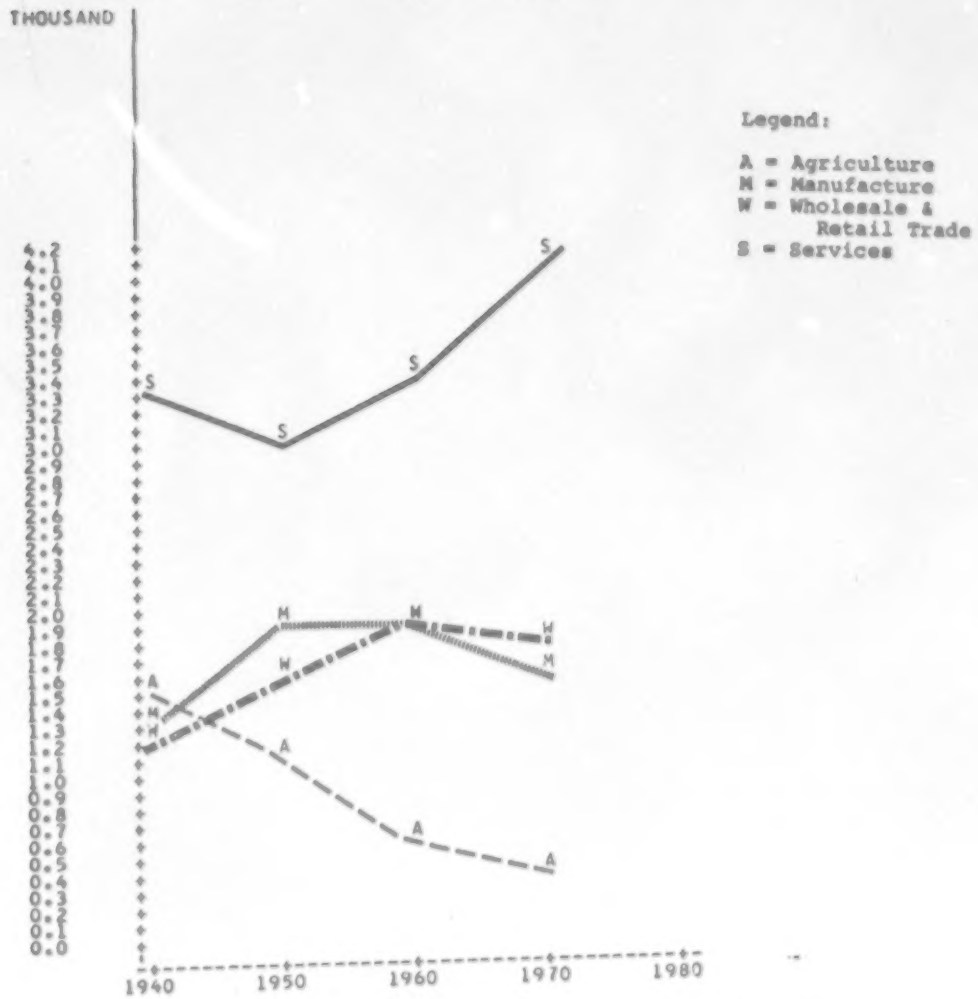
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
7929	8178	7486	5942	6171	4611	2725	1680	1487
Size of Farm in Acres								
	70	72	73	72	82	106	132	143

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.28	2.80	2.97	1.79	1.79	1.82	1.74
Value Added Per Employee*						
5.24	8.62	9.55	7.60	9.63	12.91	15.92

*(in thousands)

36031 Essex

1940	1950	1960	1970	1980
Percent of Population Employed				
28.9	31.3	32.3	35.1	



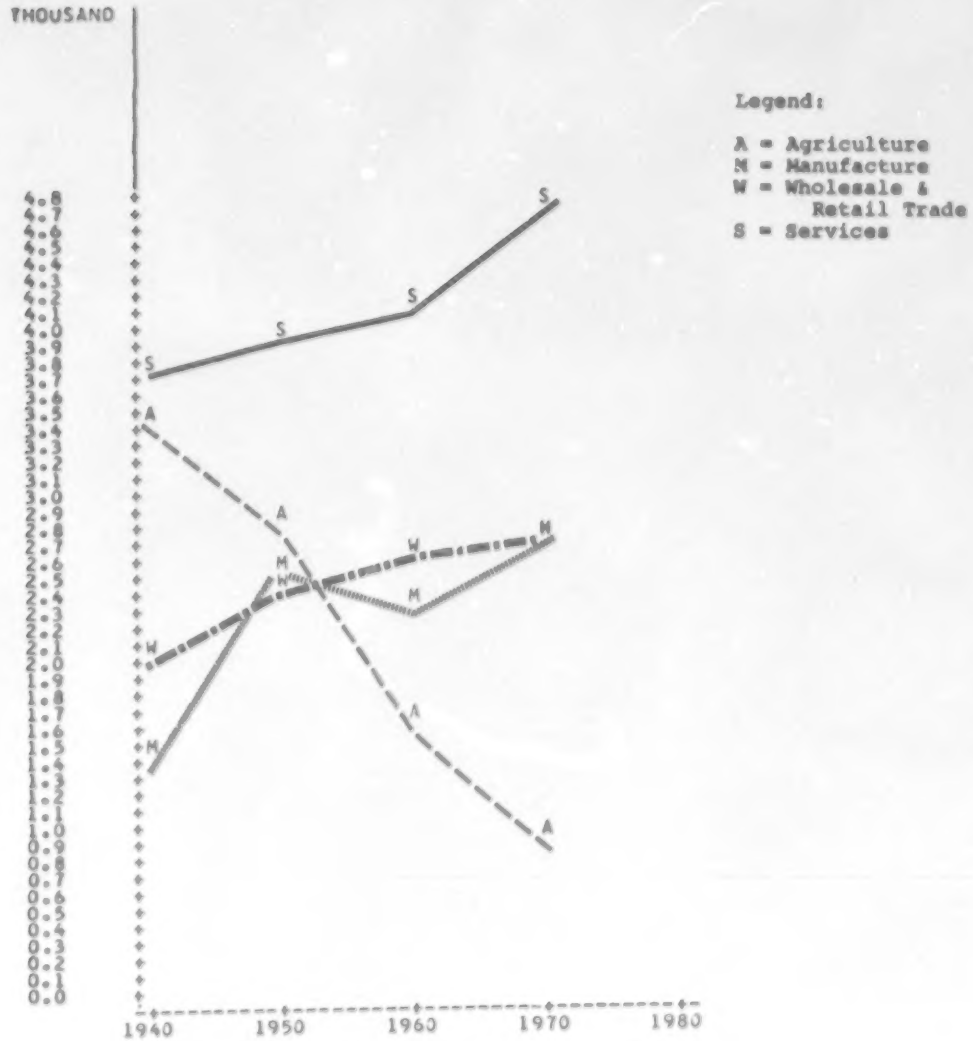
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2412	2274	1978	1757	1604	1156	529	285	231
Size of Farm in Acres								
	158	157	150	133	170	240	267	320

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.59	1.98	1.84	1.73	1.44	1.82	2.19
Value Added Per Employee*						
5.02	4.97	3.82	5.74	5.90	10.98	18.61

*(in thousands)

36033 Franklin

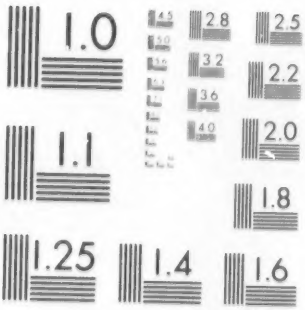
1940	1950	1960	1970	1980
Percent of Population Employed				
29.3	32.9	30.8	31.6	



1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3721	3675	3299	2925	2761	2074	1293	778	616
Size of Farm in Acres								
	117	124	122	122	147	189	240	271

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.06	2.13	1.99	1.51	1.57	1.67	1.61
Value Added Per Employee*						
3.70	5.09	3.63	3.80	4.74	5.94	8.61

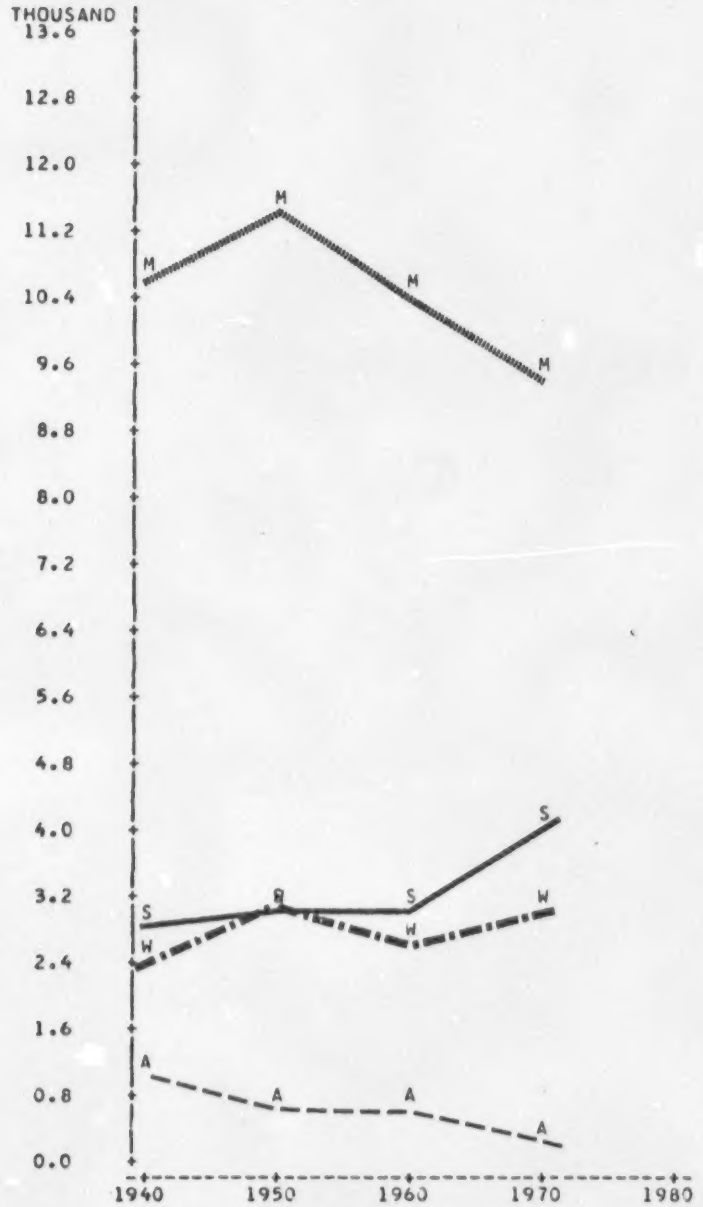
*(in thousands)



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

36035 Fulton

1940	1950	1960	1970	1980
Percent of Population Employed				
41.1	42.8	39.5	40.4	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

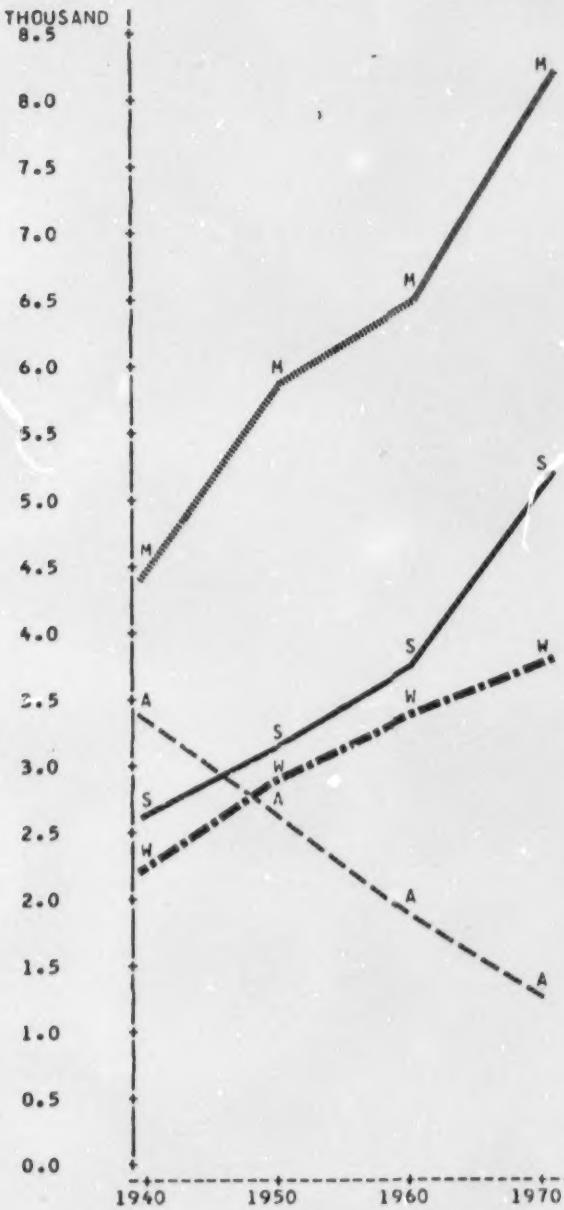
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2234	1932	1773	1167	1323	830	591	271	219
Size of Farm in Acres								
	107	111	104	90	111	136	180	203

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.92	2.39	1.89	1.68	1.56	1.68	2.08
Value Added Per Employee*						
4.66	5.34	3.71	4.89	5.19	6.95	11.33

*(in thousands)

36037 Genesee

1940	1950	1960	1970	1980
Percent of Population Employed				
35.3	38.3	36.4	38.8	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

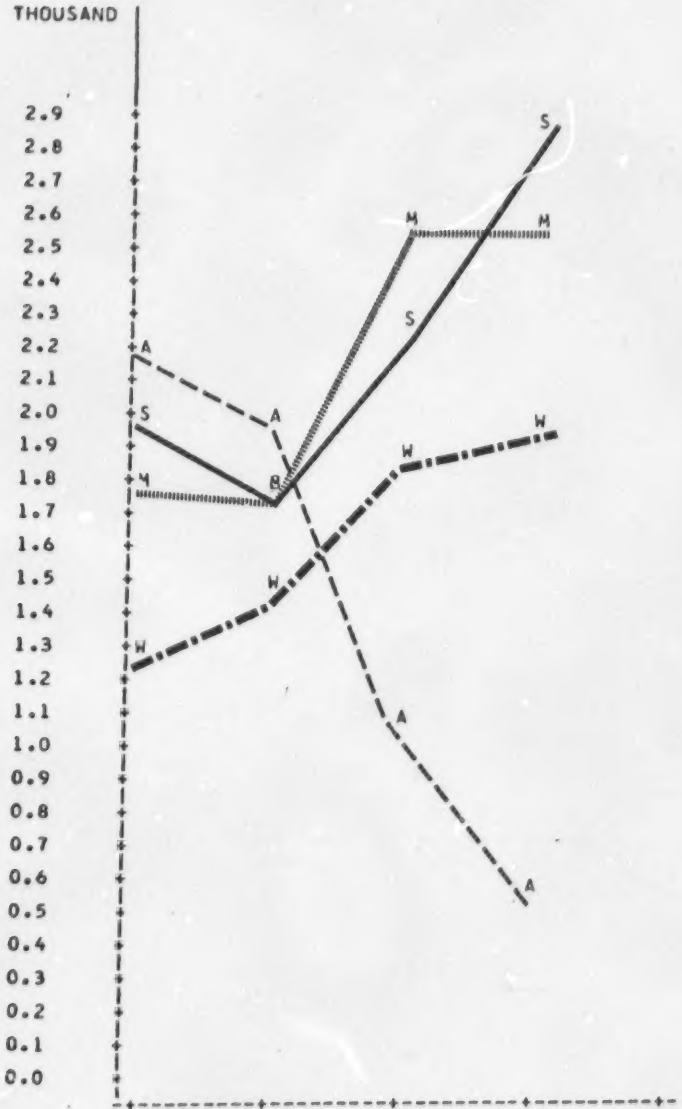
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3286	3250	2885	2555	2487	2112	1585	1029	890
Size of Farm in Acres								
	89	96	101	106	122	151	191	219

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
3.24	3.75	3.22	1.98	2.08	2.53	1.40
Value Added Per Employee*						
5.58	9.98	7.87	7.74	9.82	15.31	11.30

*(in thousands)

36039 Greene

1940	1950	1960	1970	1980
Percent of Population Employed				
32.6	33.4	35.3	36.0	



Legend:

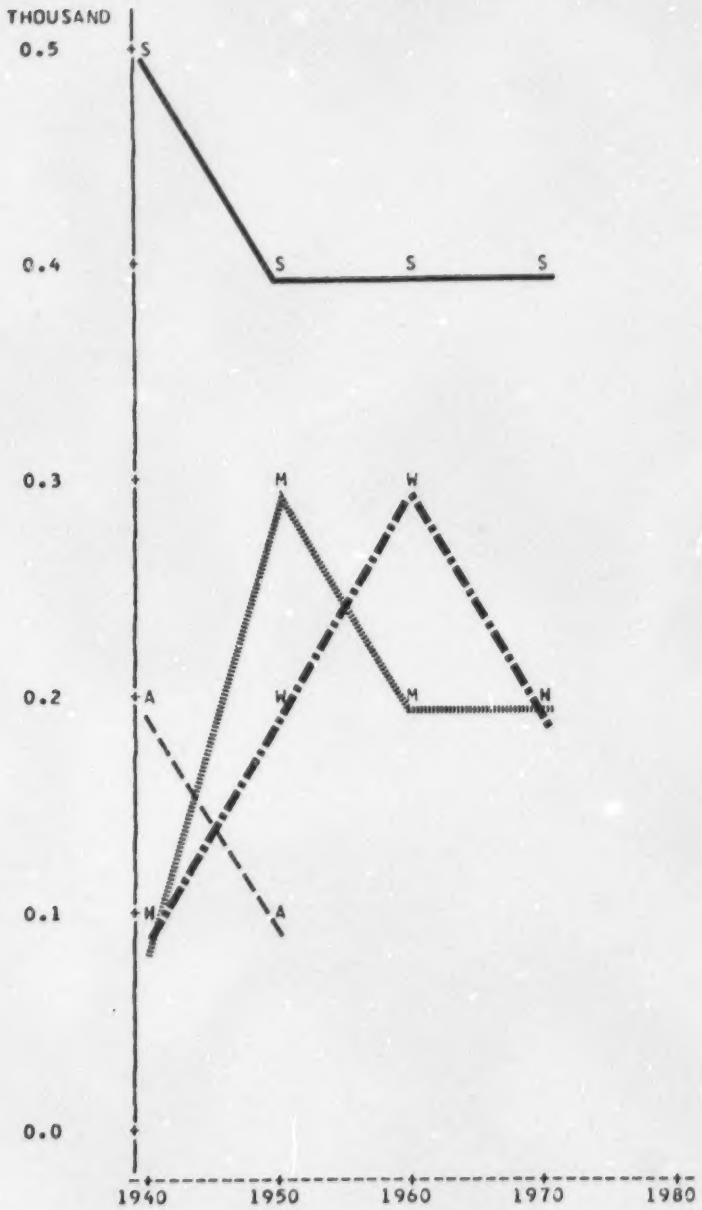
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2746	2654	2248	1787	1653	1300	733	377	297
Size of Farm in Acres								
	117	126	127	127	132	186	210	240

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.96	2.54	2.18	1.87	1.92	1.89	2.18
Value Added Per Employee*						
3.24	5.85	4.74	6.02	7.67	9.15	14.90

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
27.1	31.1	34.7	31.3	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

NOTE: 2 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

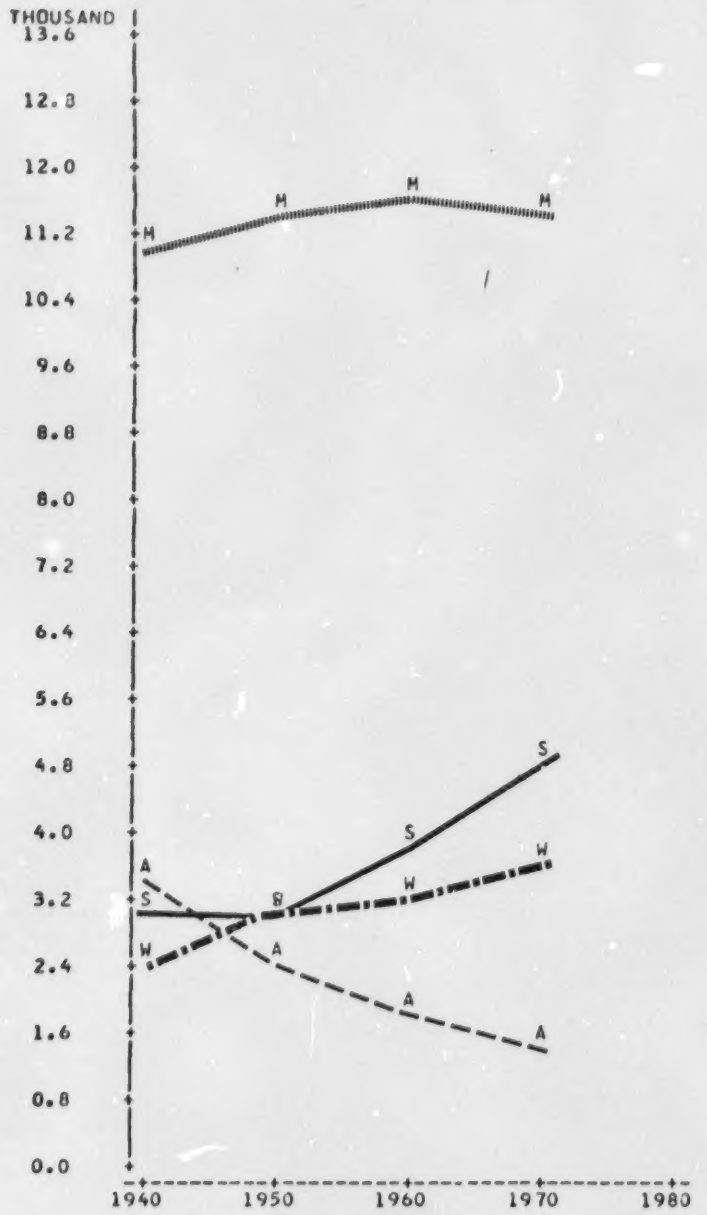
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
510	470	255	160	248	75	40	--	2
Size of Farm in Acres								
	120	143	202	133	97	131	--	27

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.01	1.96	3.87	2.07	1.78	1.68	1.50
Value Added Per Employee*						
3.87	3.18	7.73	6.83	5.91	7.53	5.09

*(in thousands)
-- no data available

36043 Herkimer

1940	1950	1960	1970	1980
Percent of Population Employed				
39.2	38.9	38.4	38.8	



Legend:

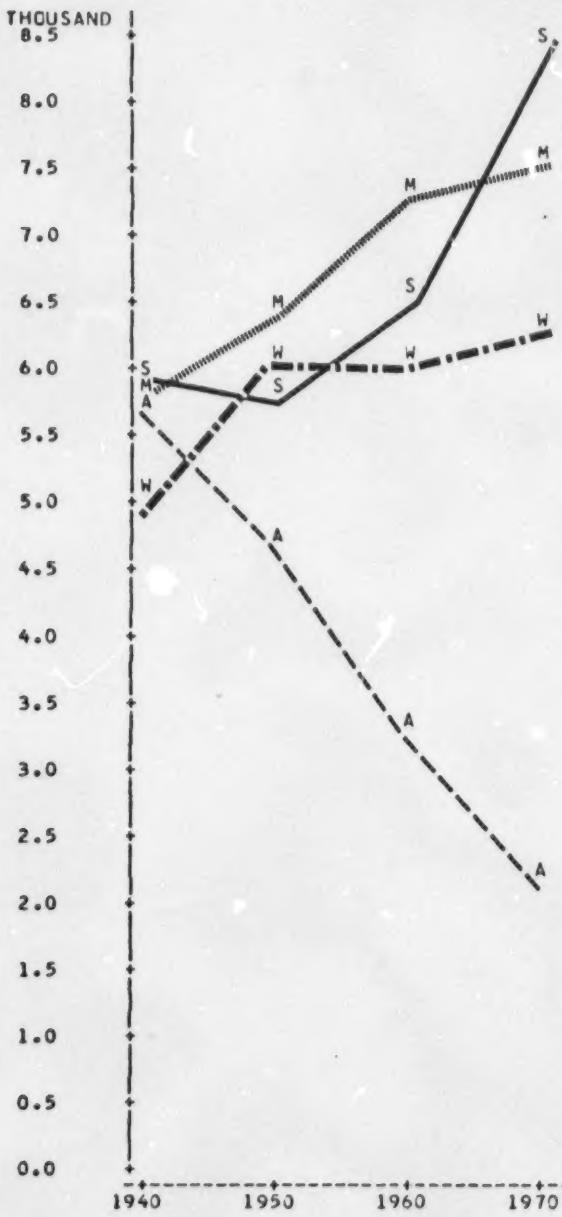
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3227	3092	2849	2400	2316	1869	1383	885	795
Size of Farm in Acres								
	120	117	125	126	151	189	224	245

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.09	2.63	2.01	1.56	2.07	2.75	1.89
Value Added Per Employee*						
3.82	6.33	4.70	5.83	8.68	15.4[illegible]	13.37

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
34.5	35.2	34.9	36.6	



Legend:

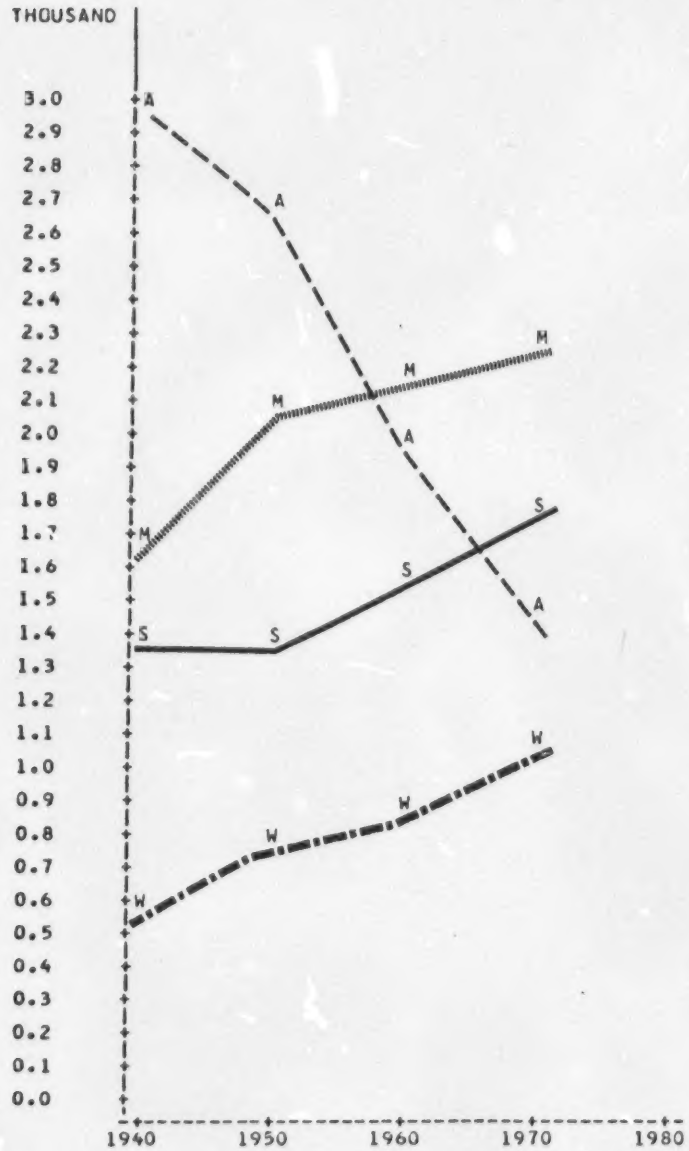
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
6052	5778	5151	4699	4205	3440	2390	1633	1383
Size of Farm in Acres								
	127	135	143	153	170	216	250	286

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.35	3.07	2.74	1.64	1.90	1.79	2.05
Value Added Per Employee*						
4.52	7.77	7.49	6.24	8.31	10.45	13.80

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
32.6	36.4	34.1	35.0	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

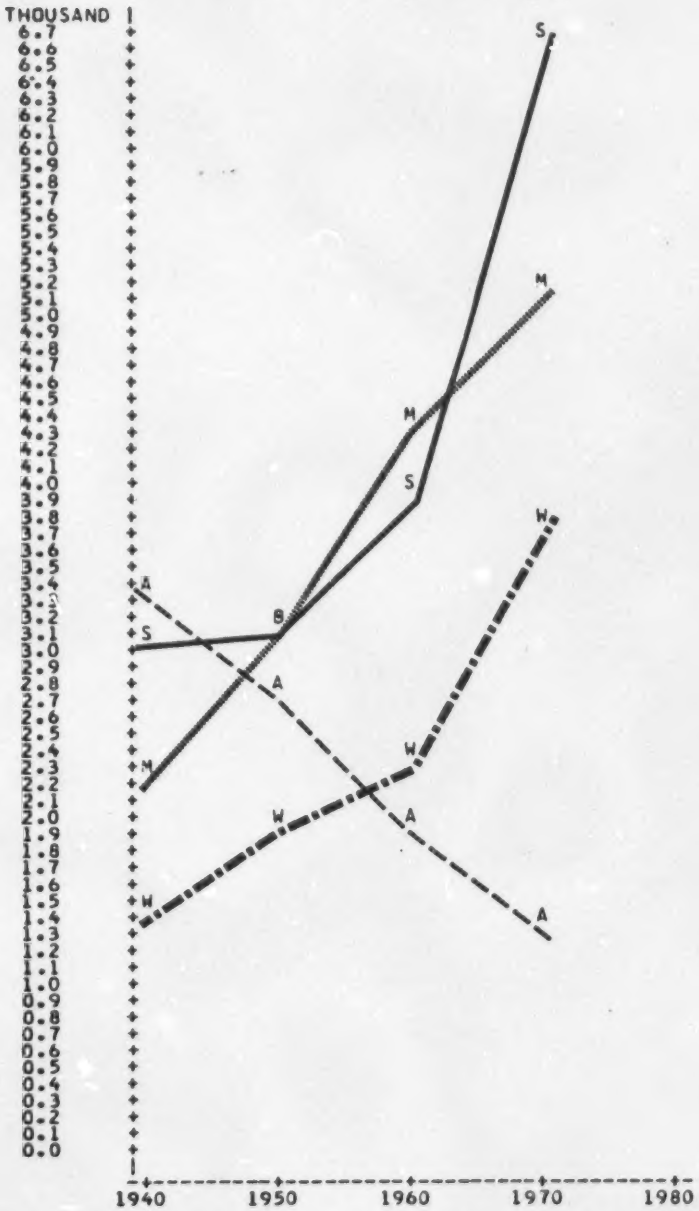
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3838	3343	2952	2558	2126	1701	1291	905	745
Size of Farm in Acres								
	142	148	157	160	189	225	242	266

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.17	2.09	2.69	2.11	1.98	1.53	1.94
Value Added Per Employee*						
4.98	5.20	6.31	7.71	8.76	8.59	13.02

*(in thousands)

36051 Livingston

1940	1950	1960	1970	1980
Percent of Population Employed				
32.0	34.2	35.4	38.9	



Legend:

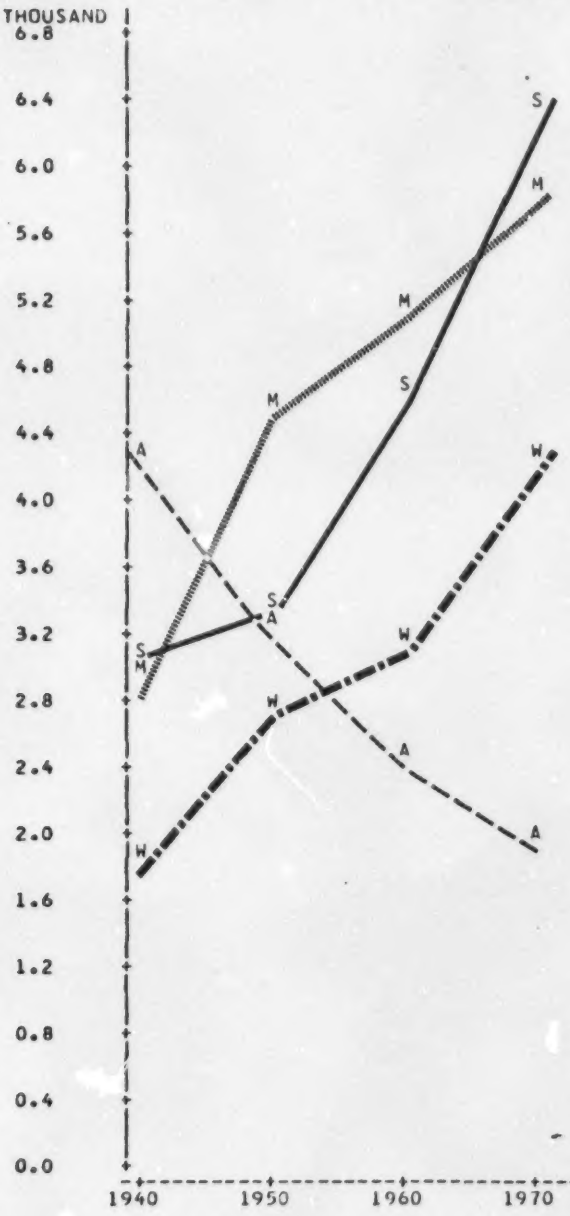
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3267	3298	2899	2322	2155	1835	1302	1038	952
Size of Farm in Acres								
	118	122	143	153	178	221	240	281

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
3.41	3.55	3.55	1.59	1.90	2.13	3.01
Value Added Per Employee*						
5.47	8.70	8.02	5.24	7.36	10.07	21.11

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
35.9	36.5	35.6	36.5	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

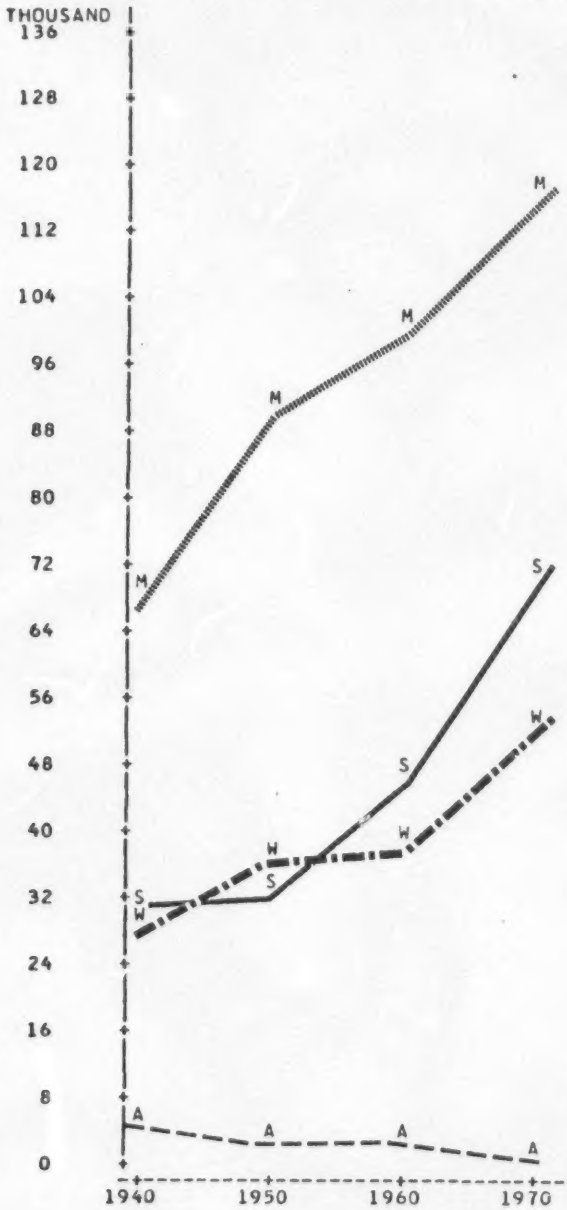
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
4144	4042	3597	3176	2752	2360	1693	1075	942
Size of Farm in Acres								
	94	101	106	116	135	179	220	252

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.59	2.50	2.55	1.60	1.64	1.25	1.71
Value Added Per Employee*						
4.55	6.27	6.41	5.46	6.81	7.24	12.04

*(in thousands)

36055 Monroe

1940	1950	1960	1970	1980
Percent of Population Employed				
38.0	41.5	39.4	41.4	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

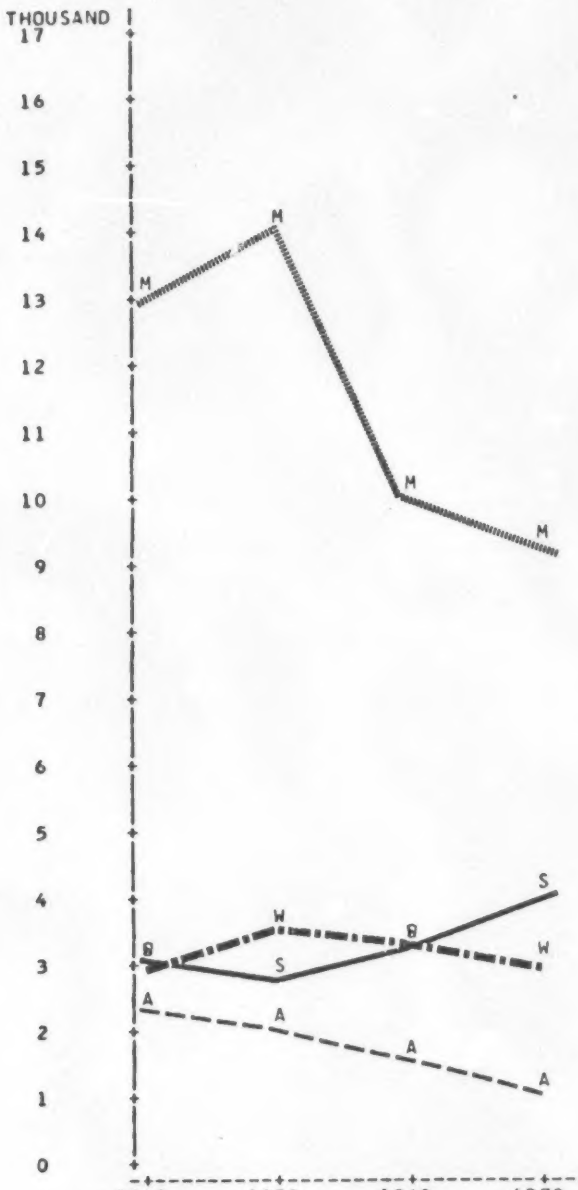
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5889	5971	5174	4165	4129	3147	1880	1085	795
Size of Farm in Acres								
65	70	75	74	91	115	144	173	

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.67	2.84	2.94	1.66	1.81	2.09	2.70
Value Added Per Employee*						
5.06	8.22	9.39	6.86	9.72	15.77	27.43

*(in thousands)

36057 Montgomery

1940	1950	1960	1970	1980
Percent of Population Employed				
42.5	44.7	39.6	40.7	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

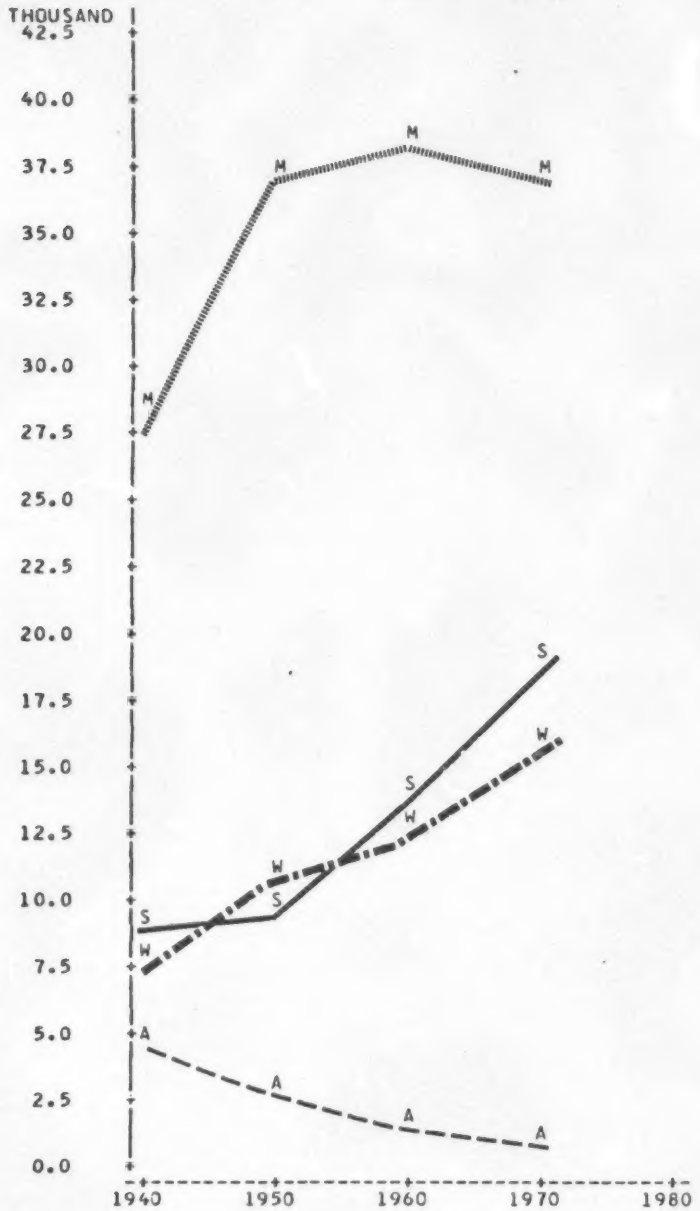
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2407	2189	2015	1753	1813	1473	1074	735	680
Size of Farm in Acres								
	107	113	121	116	139	179	219	237

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.38	2.33	2.79	2.07	2.07	2.04	2.13
Value Added Per Employee*						
3.70	5.24	6.16	7.54	8.47	9.57	12.53

*(in thousands)

36063 Niagara

1940	1950	1960	1970	1980
Percent of Population Employed				
37.4	38.9	36.8	37.8	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

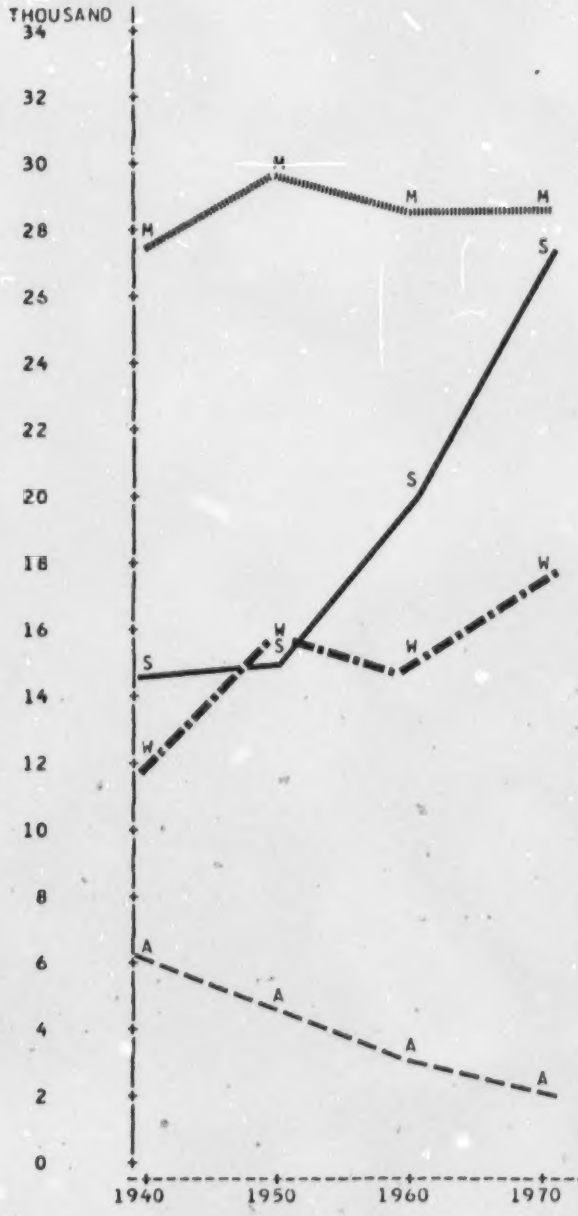
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
4356	4346	4068	4018	3871	3362	2456	1654	1228
Size of Farm in Acres								
	70	71	70	71	74	85	104	127

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.29	3.20	3.54	1.98	1.82	2.04	2.75
Value Added Per Employee*						
4.95	9.63	11.41	8.71	10.38	14.99	23.81

*(in thousands)

36065 Oneida

1940	1950	1960	1970	1980
Percent of Population Employed				
36.3	37.4	36.0	37.5	



Legend:

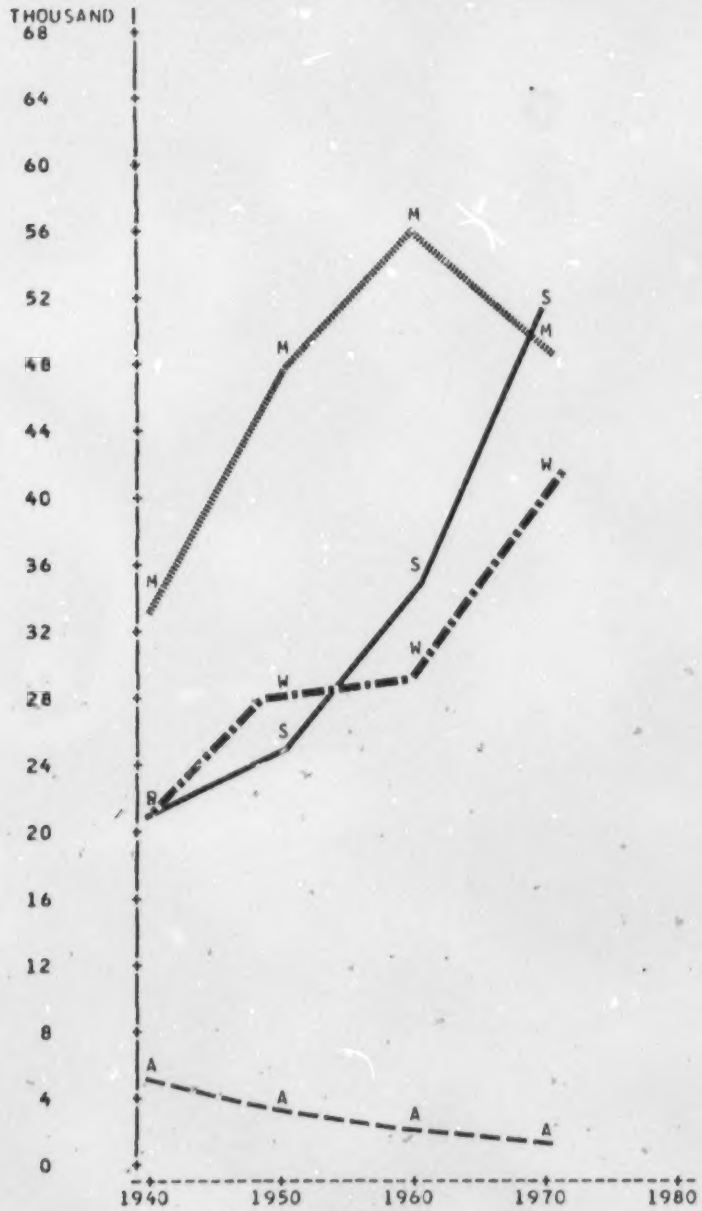
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
7232	6929	6233	4699	4706	3909	2511	1626	1411
Size of Farm in Acres								
	100	98	110	109	124	163	197	211

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.18	2.34	2.52	1.69	1.91	1.76	2.12
Value Added Per Employee*						
3.90	5.52	6.14	6.71	9.12	10.85	16.01

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
35.8	40.5	38.8	39.7	



Legend:

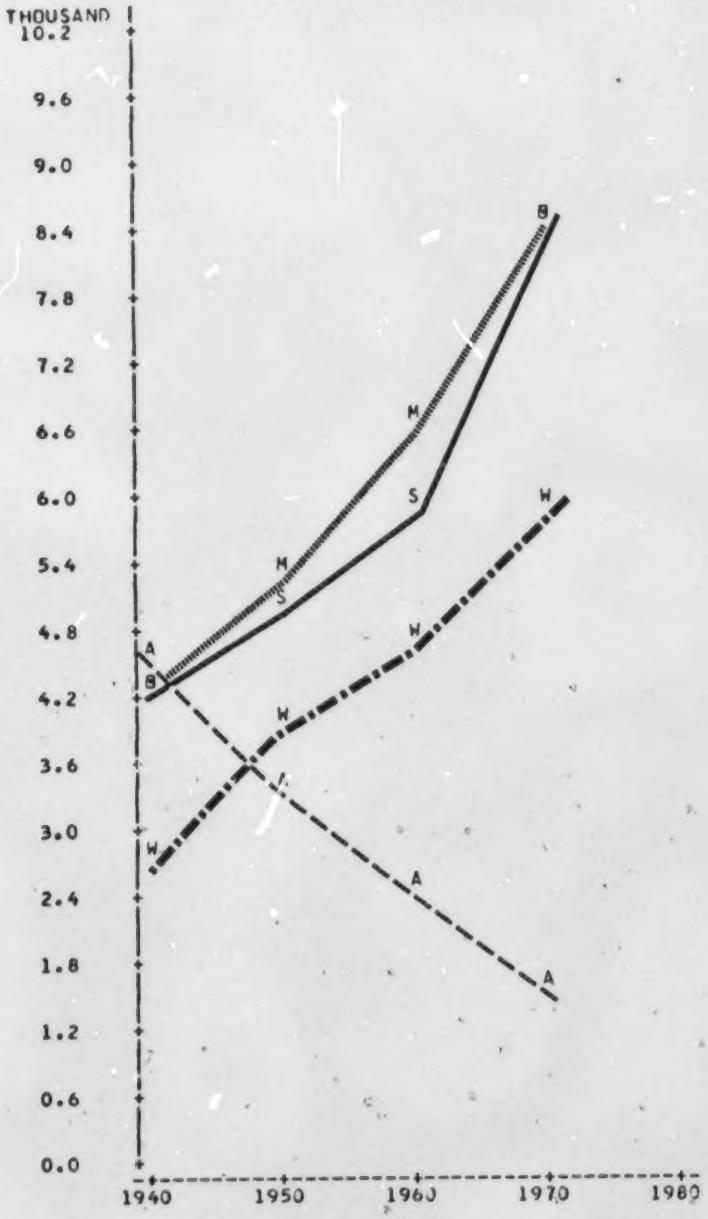
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
6305	5770	5652	4529	4490	3405	1765	1159	992
Size of Farm in Acres								
	76	76	83	83	98	143	177	201

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.31	2.70	2.62	1.74	1.97	1.83	2.01
Value Added Per Employee*						
4.74	8.31	7.48	7.13	9.80	12.45	17.11

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
34.9	37.0	36.0	39.0	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

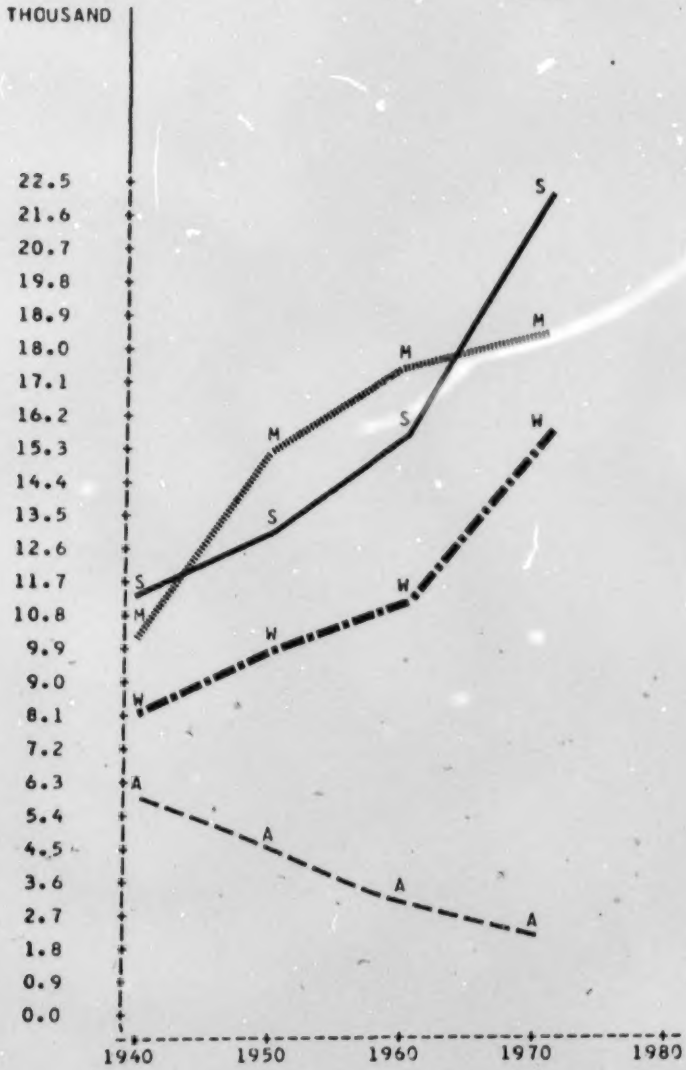
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
4328	4416	4062	3322	3093	2507	1896	1364	1036
Size of Farm in Acres								
	88	91	104	103	121	150	178	216

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.36	2.55	2.37	1.64	1.75	1.86	2.17
Value Added Per Employee*						
4.36	6.93	6.05	6.19	7.72	10.97	14.73

*(in thousands)

36071 Orange

1940	1950	1960	1970	1980
Percent of Population Employed				
35.9	41.0	38.5	39.2	



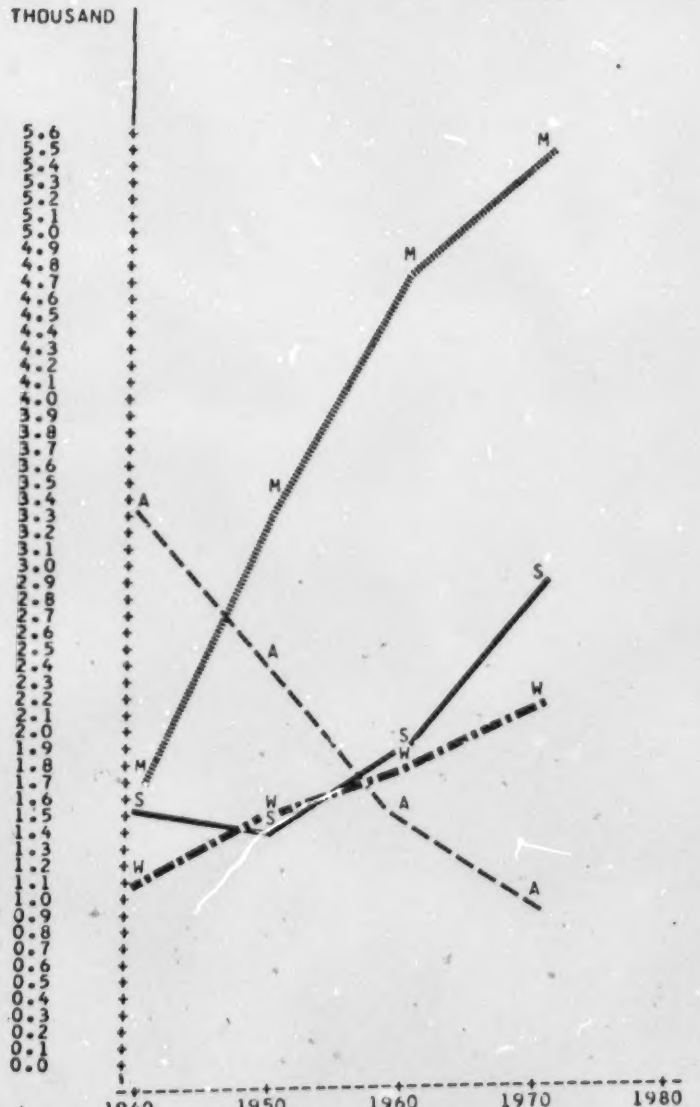
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3966	3935	3591	3115	3513	2958	2055	1124	891
Size of Farm in Acres								
	98	98	97	85	93	114	140	170

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.94	2.11	2.39	1.80	1.81	1.98	1.95
Value Added Per Employee*						
3.74	5.46	5.31	6.05	7.08	9.38	12.19

*(in thousands)

36073 Orleans

1940	1950	1960	1970	1980
Percent of Population Employed				
33.8	36.7	36.6	37.8	



Legend:

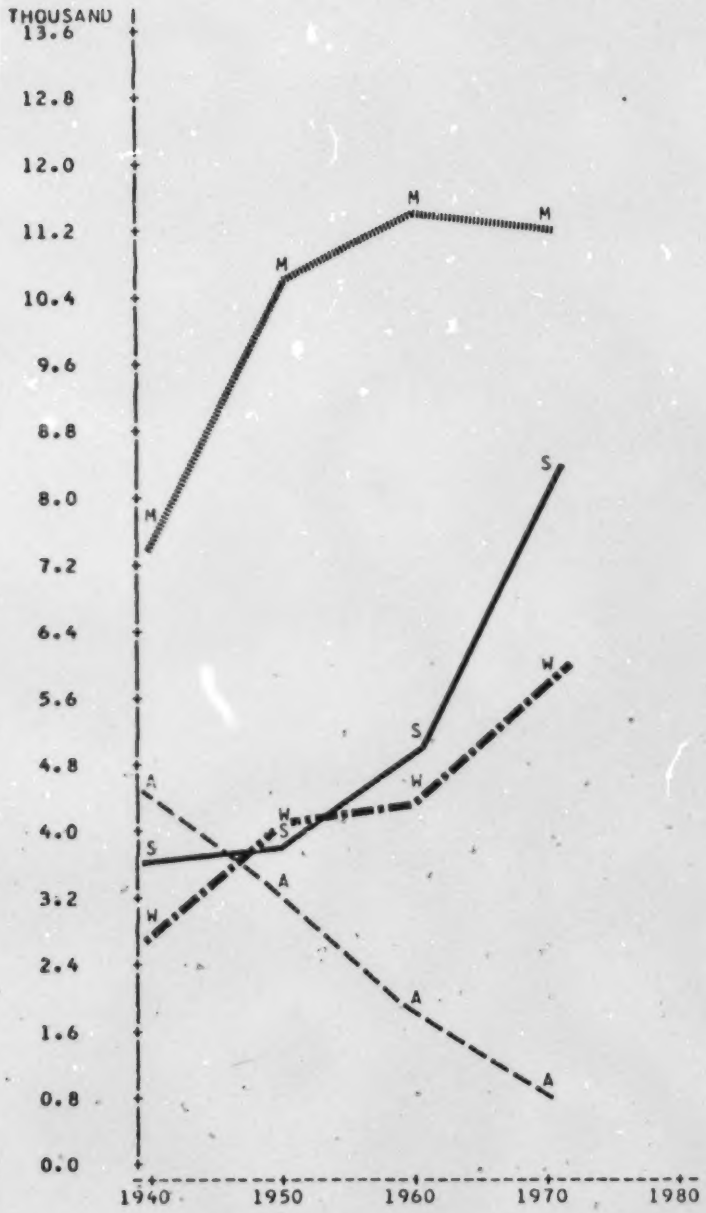
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2964	2780	2579	2392	2161	1878	1259	928	776
Size of Farm in Acres								
	84	90	89	96	107	140	179	207

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.66	2.78	5.14	1.80	2.47	3.37	4.24
Value Added Per Employee*						
3.83	5.54	8.99	5.74	9.58	17.15	25.05

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
33.1	35.2	33.1	34.0	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

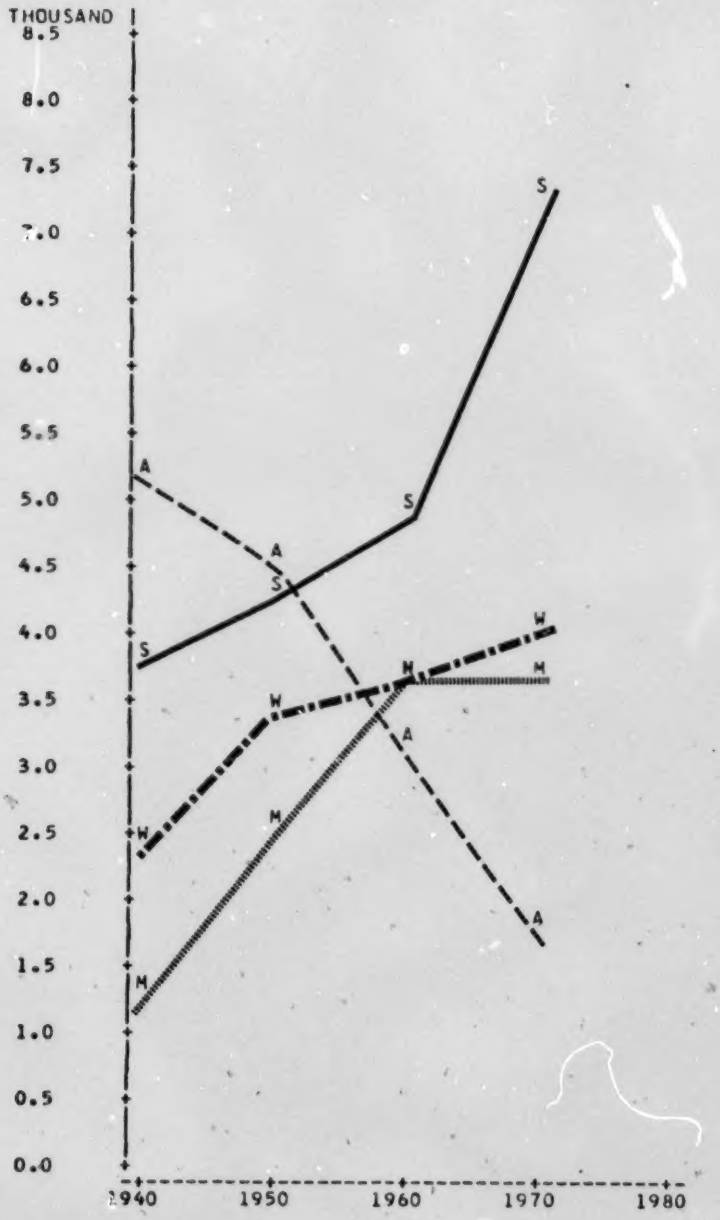
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
6914	6319	5539	4726	4426	3339	2030	1000	904
Size of Farm in Acres								
	78	84	82	81	101	124	161	166

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.14	2.86	2.71	1.97	1.97	2.07	2.32
Value Added Per Employee*						
3.71	6.79	7.02	7.32	9.17	12.20	16.76

*(in thousands)

36077 Otsego

1940	1950	1960	1970	1980
Percent of Population Employed				
35.1	38.7	37.0	37.3	



Legend:

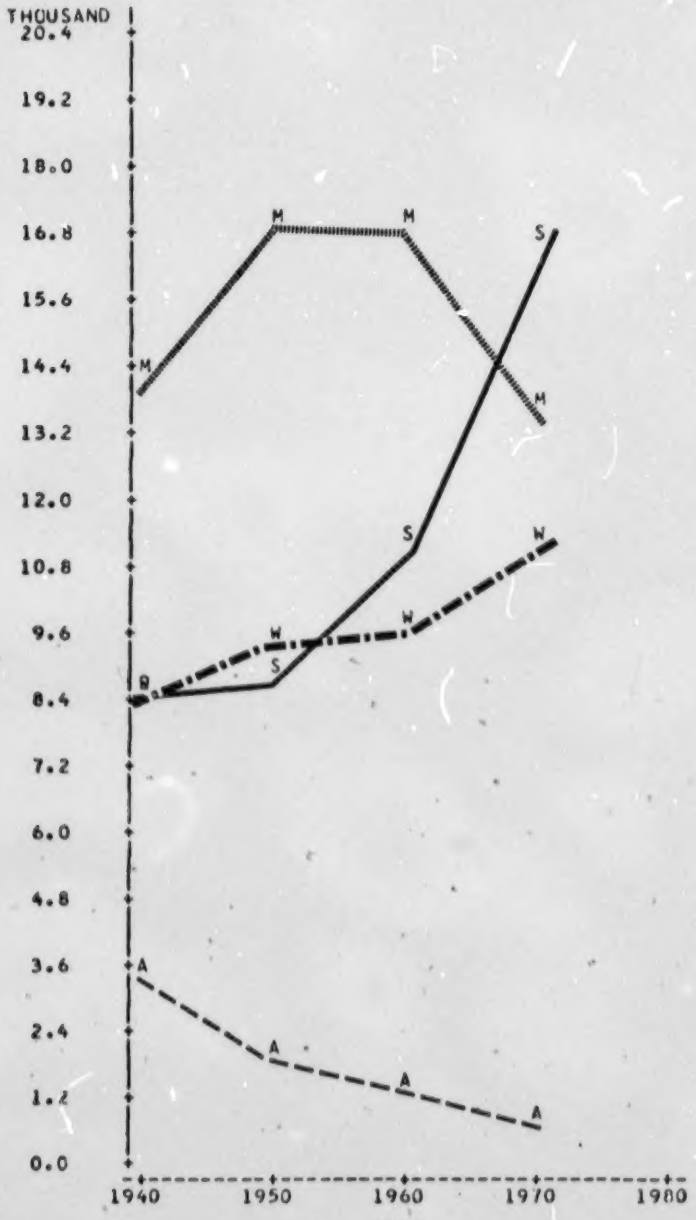
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5634	5346	4770	3980	3752	3261	2391	1427	1206
Size of Farm in Acres								
	111	120	129	132	147	191	228	255

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.74	2.29	3.13	1.87	1.60	2.10	2.08
Value Added Per Employee*						
3.01	6.37	6.54	5.37	5.56	8.66	12.07

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
37.0	39.1	37.2	39.0	



Legend:

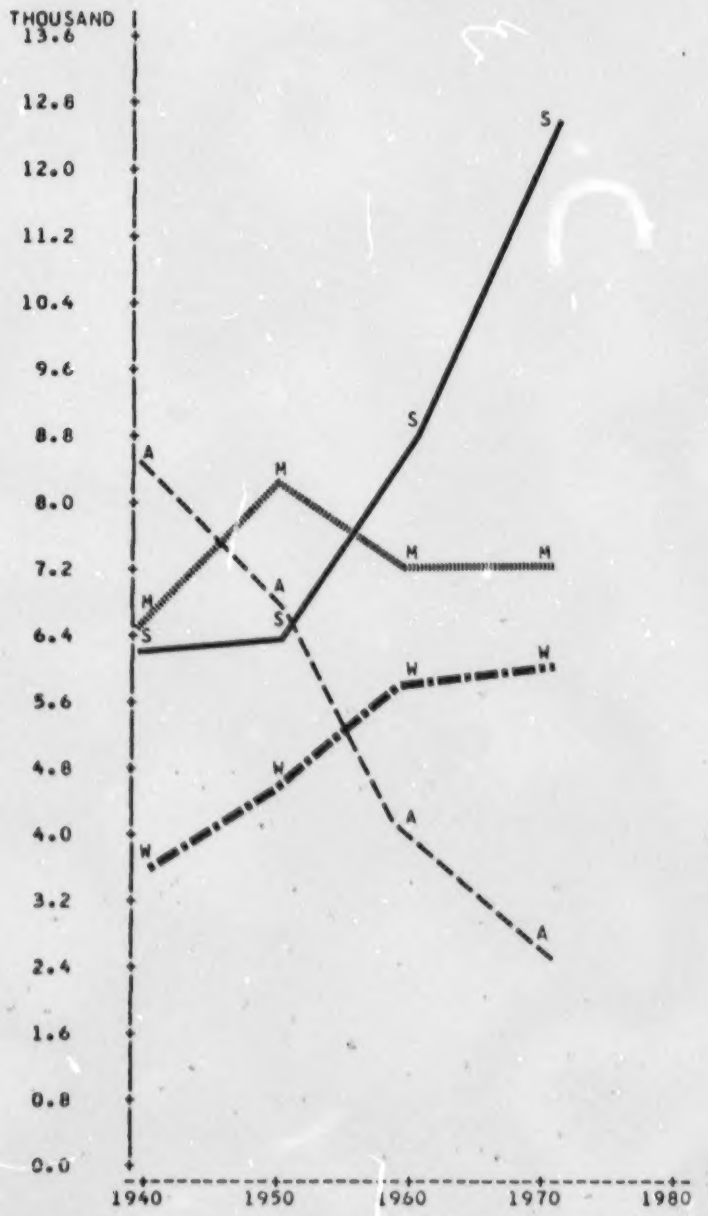
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3668	3654	3078	2533	2675	1822	1151	649	528
Size of Farm in Acres								
	100	100	106	102	125	156	188	200

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
3.00	2.28	2.74	1.96	2.09	2.21	2.03
Value Added Per Employee*						
4.33	5.08	6.41	6.88	8.61	11.35	16.31

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
32.5	32.8	30.1	32.2	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

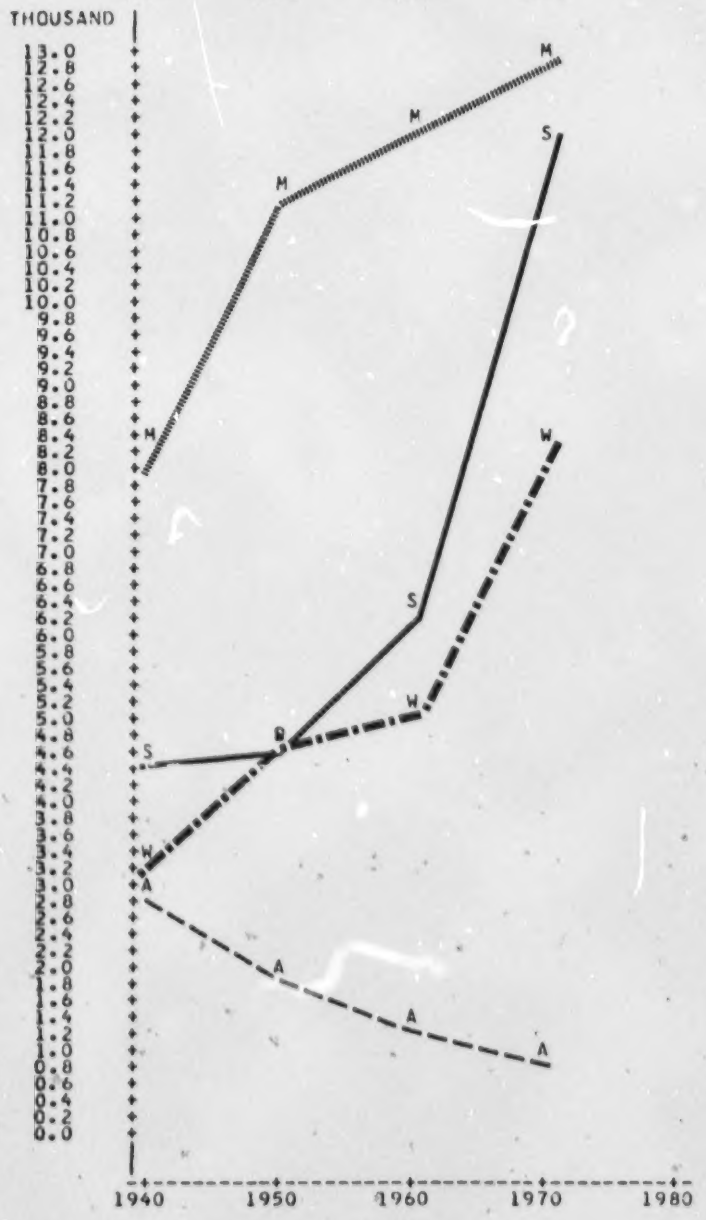
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
8353	8224	7652	6979	6236	5091	3426	2190	1730
Size of Farm in Acres								
	129	137	144	148	174	210	248	268

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.18	3.17	3.59	1.87	1.83	2.46	1.65
Value Added Per Employee*						
4.33	9.04	11.18	7.18	8.93	17.20	14.66

*(in thousands)

36091 Saratoga

1940	1950	1960	1970	1980
Percent of Population Employed				
36.1	38.5	35.8	37.3	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

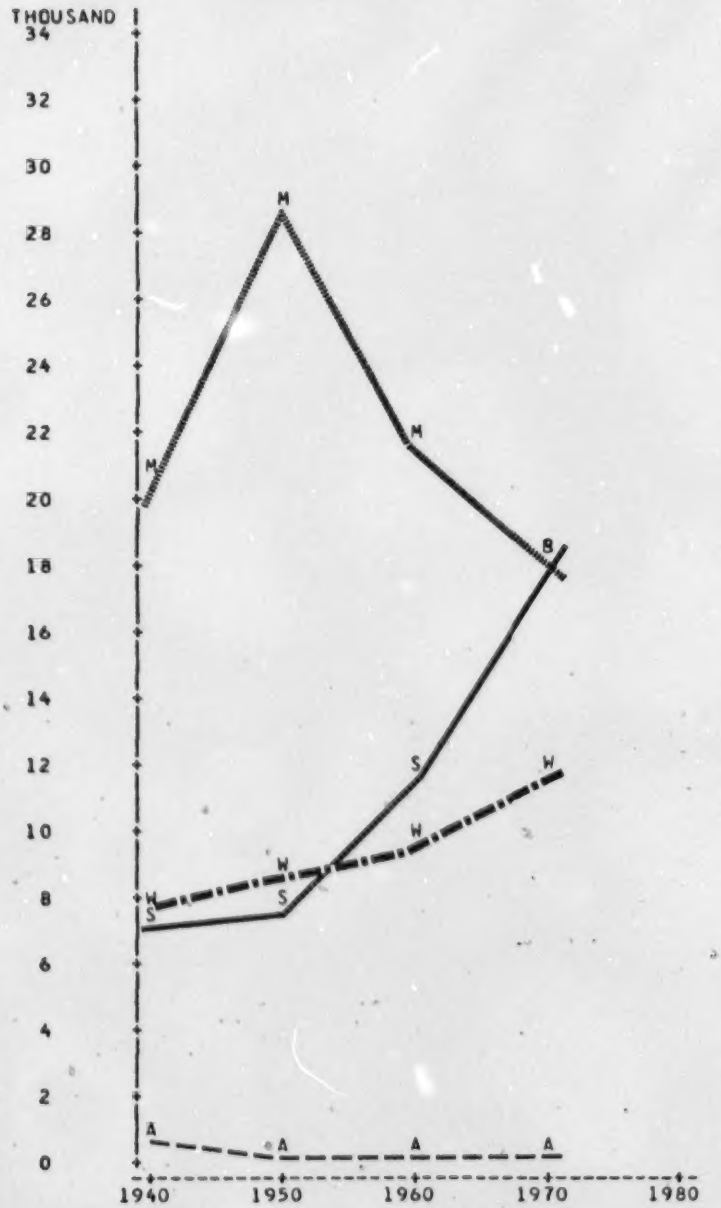
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3805	3611	3178	2417	2591	1795	1151	595	534
Size of Farm in Acres								
	109	106	107	95	112	141	167	171

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.49	2.27	2.38	2.09	1.71	1.93	**
Value Added Per Employee*						
4.54	5.25	5.39	7.27	7.33	11.07	**

*(in thousands)
**Withheld to avoid disclosing figures for individual companies.

36093 Schenectady

1940	1950	1960	1970	1980
Percent of Population Employed				
35.9	40.3	36.4	39.4	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

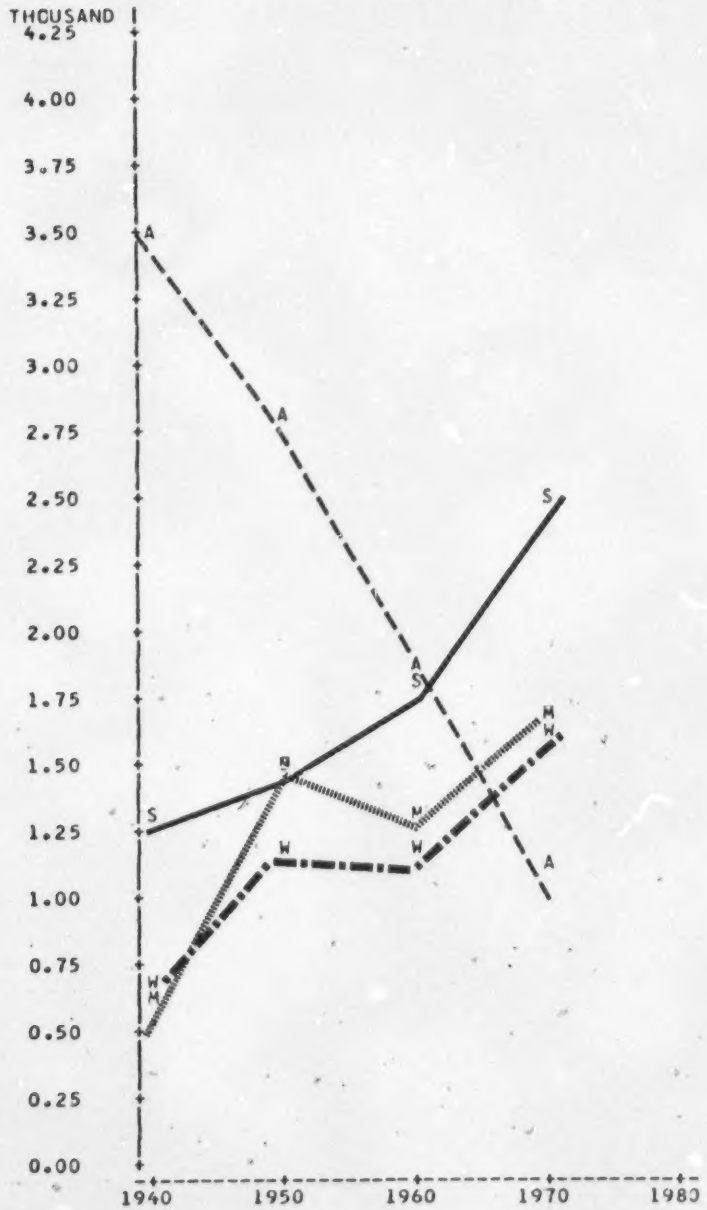
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
1194	1027	983	736	938	600	349	274	185
Size of Farm in Acres								
	104	104	98	86	101	124	126	141

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.14	1.86	2.49	1.26	1.77	1.42	**
Value Added Per Employee*						
5.00	6.51	9.55	5.55	10.67	11.75	**

*(in thousands)

**Withheld to avoid disclosing figures for individual companies.

1940	1950	1960	1970	1980
Percent of Population Employed				
34.3	37.8	33.9	36.4	

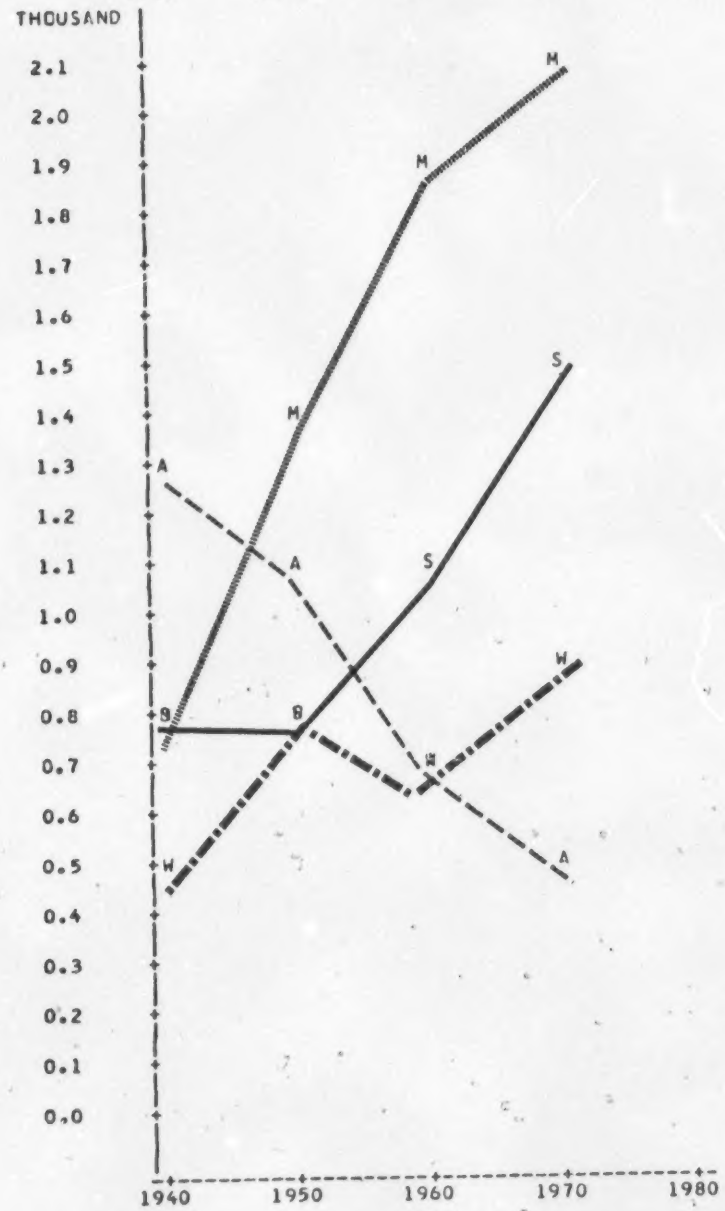


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3437	3288	2791	2272	2453	1940	1188	774	679
Size of Farm in Acres								
	113	124	134	126	149	195	223	236

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.95	3.22	2.95	2.13	1.41	1.54	1.78
Value Added Per Employee*						
2.67	8.07	6.17	6.31	4.92	6.94	11.63

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
31.5	34.9	35.7	36.9	



Legend:

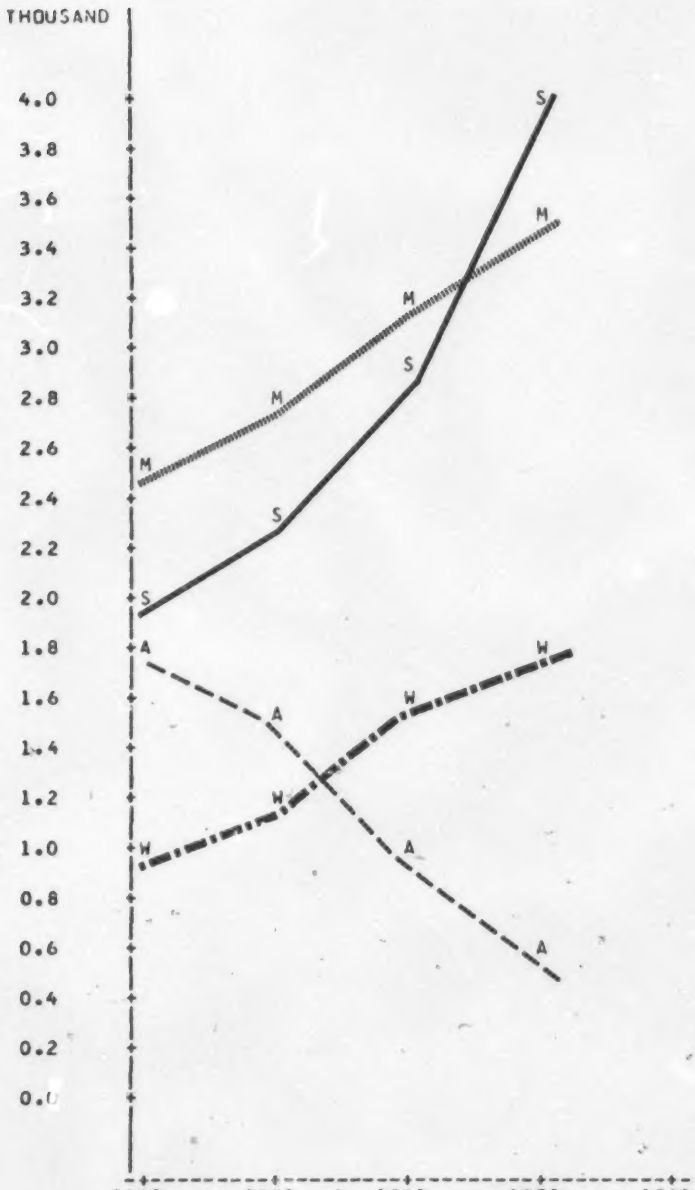
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2103	1920	1639	1361	1126	1118	675	482	441
Size of Farm in Acres								
	99	107	115	108	128	171	182	183

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.80	3.79	3.46	2.08	1.94	2.25	2.28
Value Added Per Employee*						
4.89	11.00	9.89	8.42	9.75	13.77	15.48

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
32.0	33.3	34.5	36.2	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

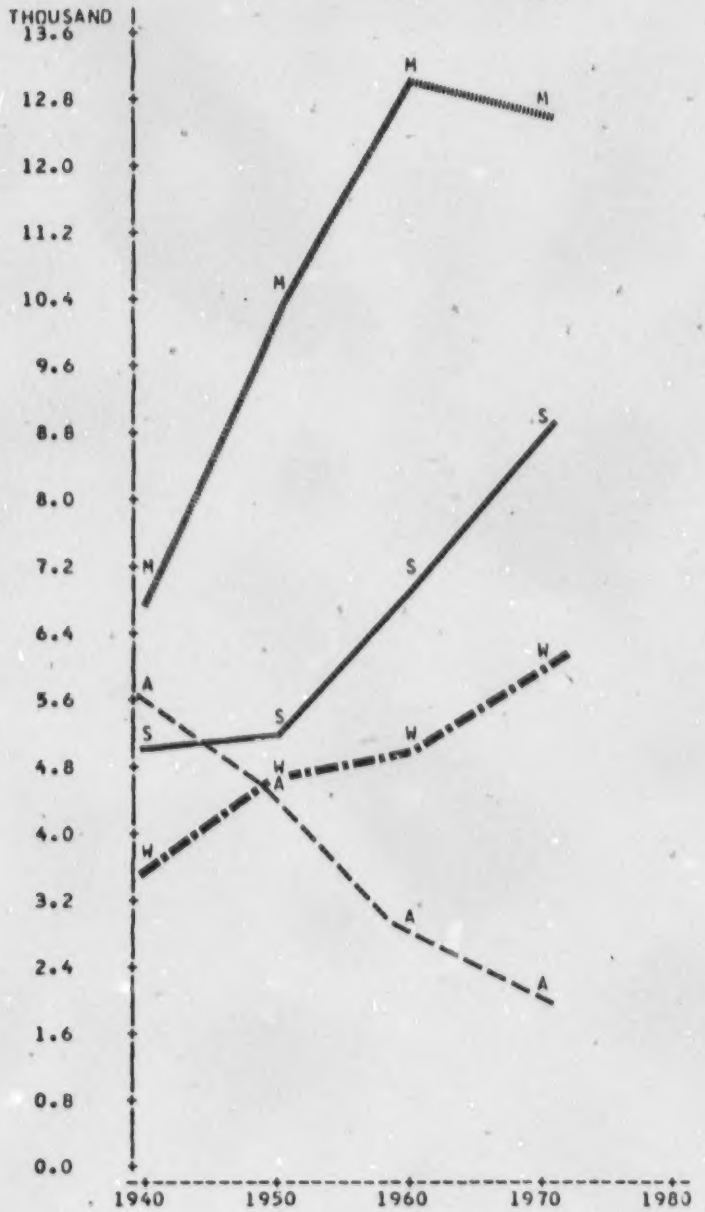
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2303	2085	1857	1666	1413	1275	813	585	519
Size of Farm in Acres								
	92	101	104	115	121	162	209	225

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.37	2.59	2.08	1.56	2.01	1.56	2.17
Value Added Per Employee*						
4.21	6.83	5.05	5.72	10.06	9.92	16.57

*(in thousands)

36101 Steuben

1940	1950	1960	1970	1980
Percent of Population Employed				
33.7	35.8	35.9	37.3	



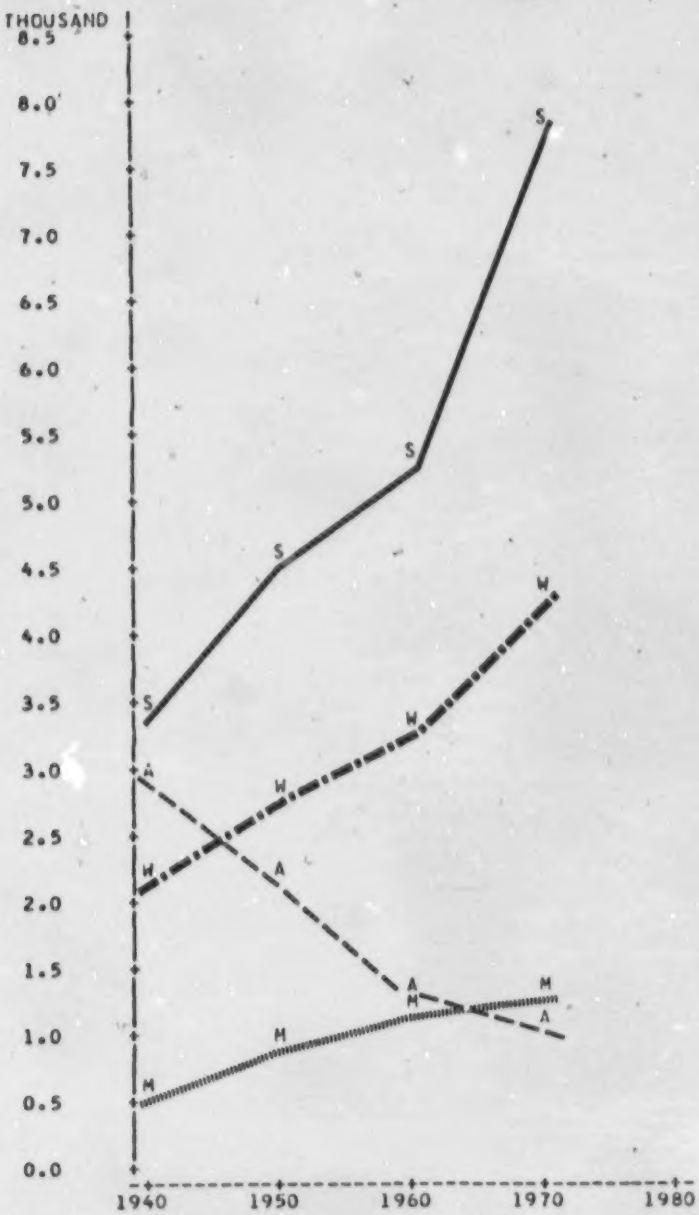
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
8179	7363	6132	5143	4513	3833	2704	1799	1615
Size of Farm in Acres								
	111	124	137	147	165	210	254	271

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.09	2.48	2.93	1.81	1.89	1.41	1.78
Value Added Per Employee*						
3.90	7.31	8.38	6.75	9.21	9.39	14.90

*(in thousands)

36105 Sullivan

1940	1950	1960	1970	1980
Percent of Population Employed				
32.3	38.2	36.8	38.3	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

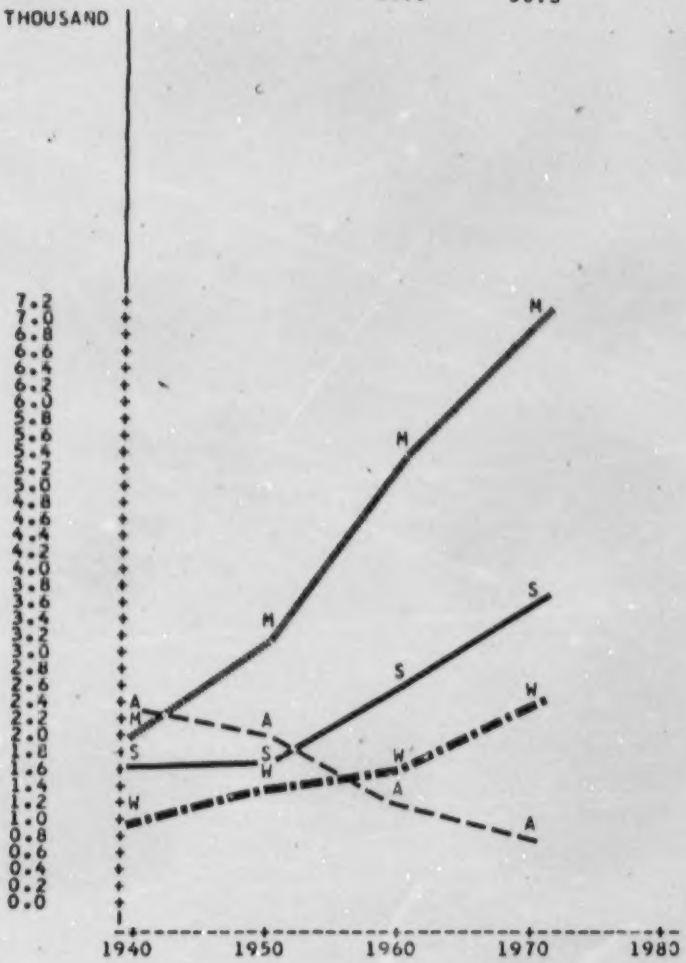
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3887	3851	3543	2979	2778	1881	1034	647	421
Size of Farm in Acres								
	117	117	96	92	102	131	143	156

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.48	2.53	3.00	2.47	2.06	2.39	1.97
Value Added Per Employee*						
3.49	6.06	6.44	7.53	6.82	10.99	12.82

*(in thousands)

36107 Tioga

1940	1950	1960	1970	1980
Percent of Population Employed				
34.1	35.9	35.3	36.3	



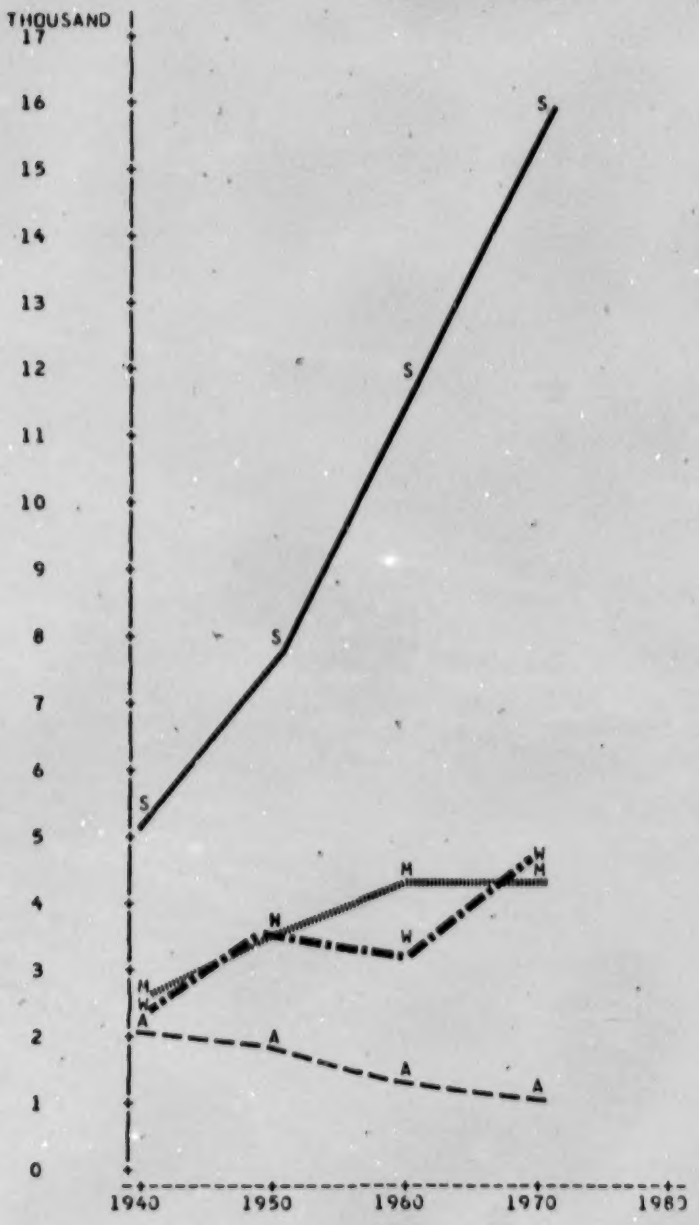
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3134	2844	2541	2273	2127	1870	1111	734	592
Size of Farm in Acres								
	105	111	115	119	132	180	217	224

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.36	2.94	3.06	1.76	1.82	1.76	1.18
Value Added Per Employee*						
3.19	6.47	5.66	5.76	6.43	15.12	14.67

*(in thousands)

36109 Tompkins

1940	1950	1960	1970	1980
Percent of Population Employed				
37.0	35.7	38.6	40.8	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

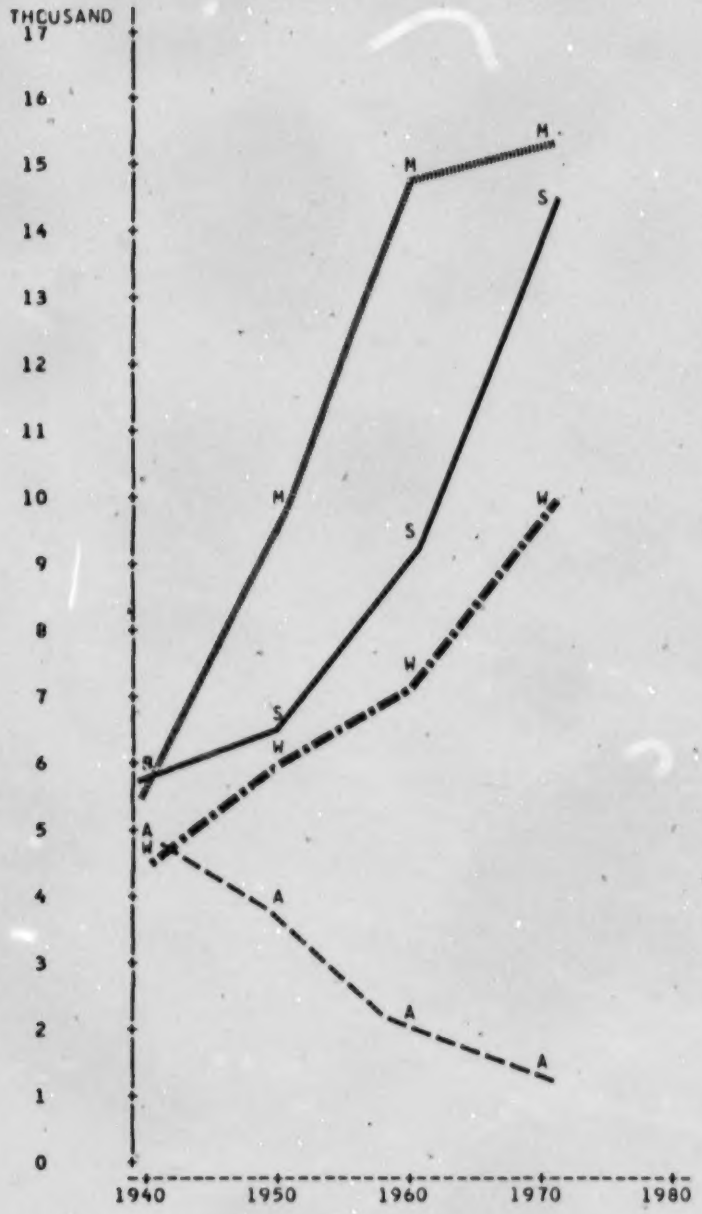
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3270	2988	2550	2358	1966	1662	1035	669	597
Size of Farm in Acres								
	91	100	102	109	122	157	202	206

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.65	2.60	2.09	1.72	1.78	1.65	1.98
Value Added Per Employee*						
4.83	7.95	5.73	6.52	7.83	9.35	13.73

*(in thousands)

36111 Ulster

1940	1950	1960	1970	1980
Percent of Population Employed				
33.2	38.3	36.7	37.4	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

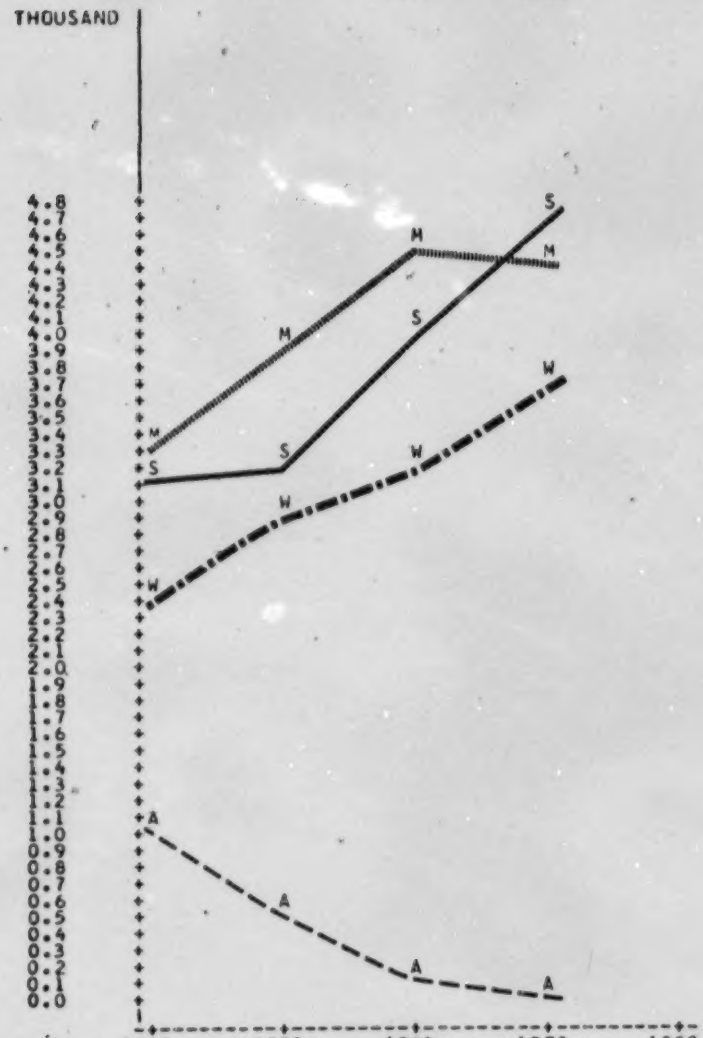
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5184	5022	4311	3690	3286	2552	1460	761	515
Size of Farm in Acres								
	99	95	85	85	89	111	120	152

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.17	2.23	2.22	1.55	1.62	1.11	1.31
Value Added Per Employee*						
3.52	4.61	4.32	4.72	5.91	7.58	12.37

*(in thousands)

36113 Warren

1940	1950	1960	1970	1980
Percent of Population Employed				
35.1	36.8	36.1	35.8	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

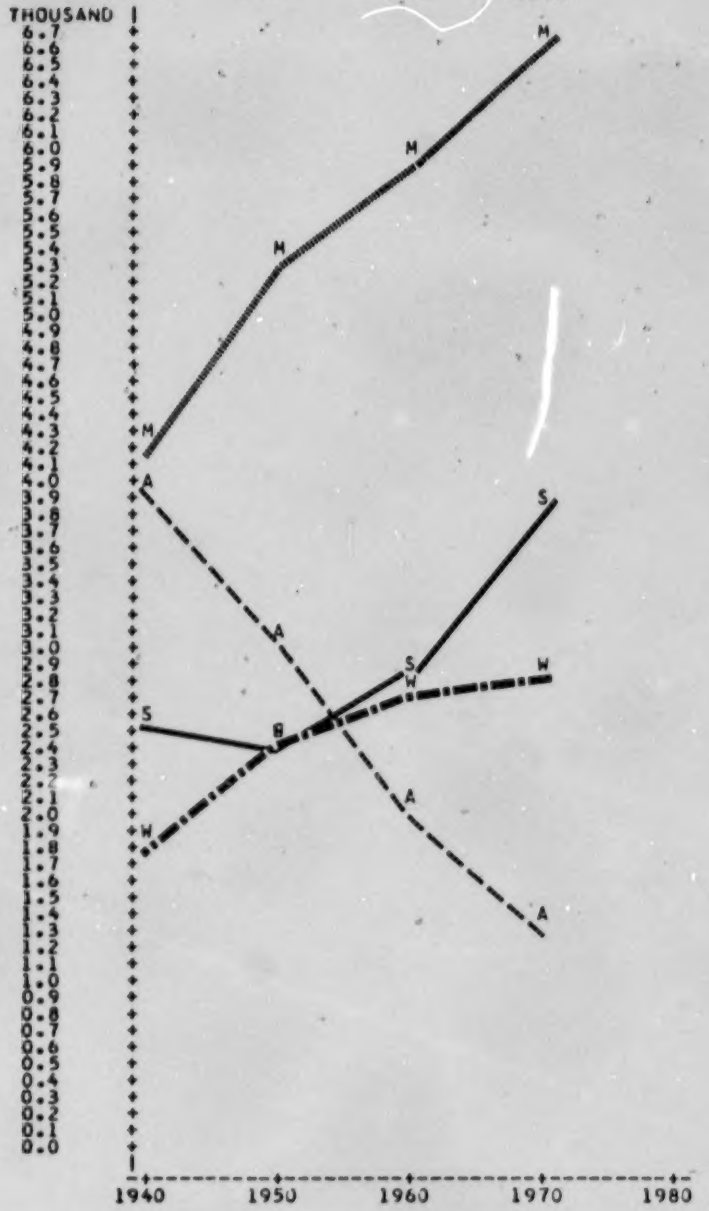
1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2121	1865	1564	889	1096	547	247	58	46
Size of Farm in Acres								
	134	137	147	109	135	155	183	160

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.32	2.60	3.13	1.89	1.76	1.91	1.93
Value Added Per Employee*						
3.23	5.61	7.05	6.88	7.44	10.18	14.44

*(in thousands)

36115 Washington

1940	1950	1960	1970	1980
Percent of Population Employed				
33.4	36.4	35.5	35.3	



Legend:

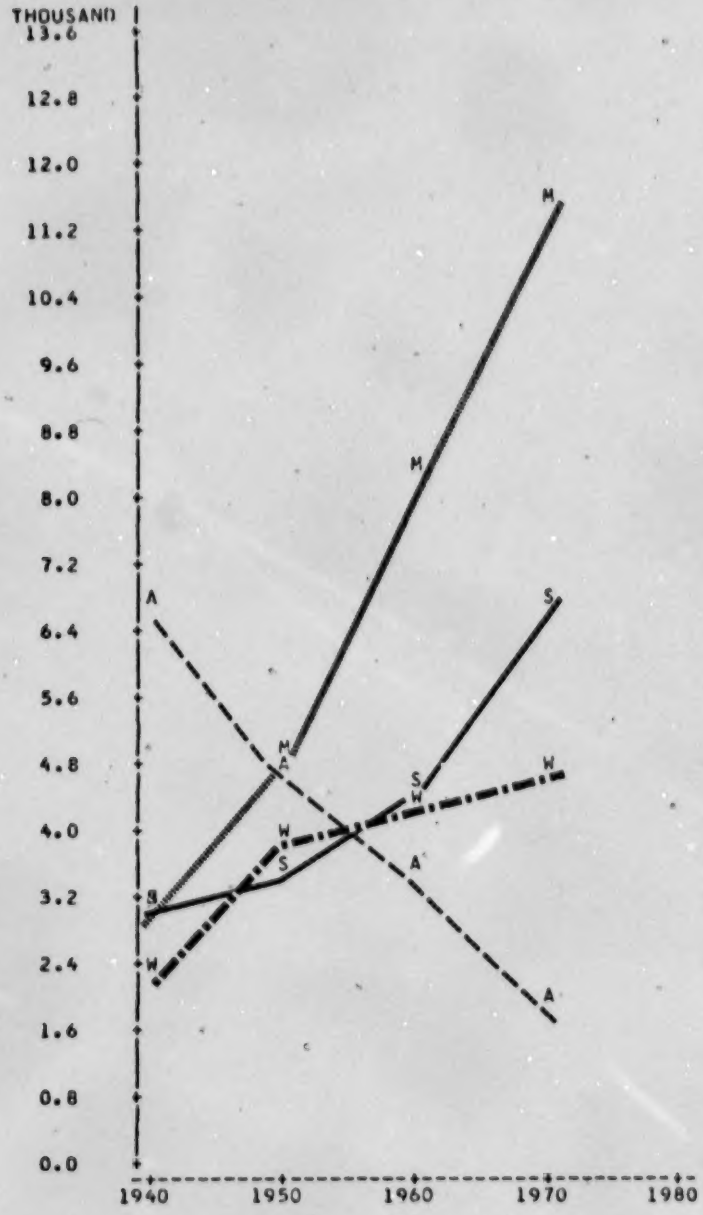
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3715	3564	3334	2889	2934	2349	1625	1038	935
Size of Farm in Acres								
	125	130	145	140	164	216	258	266

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
1.98	2.13	1.86	1.76	2.20	2.29	2.28
Value Added Per Employee*						
3.36	4.52	4.23	6.24	9.80	13.88	17.04

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
34.3	36.3	35.7	37.2	



Legend:

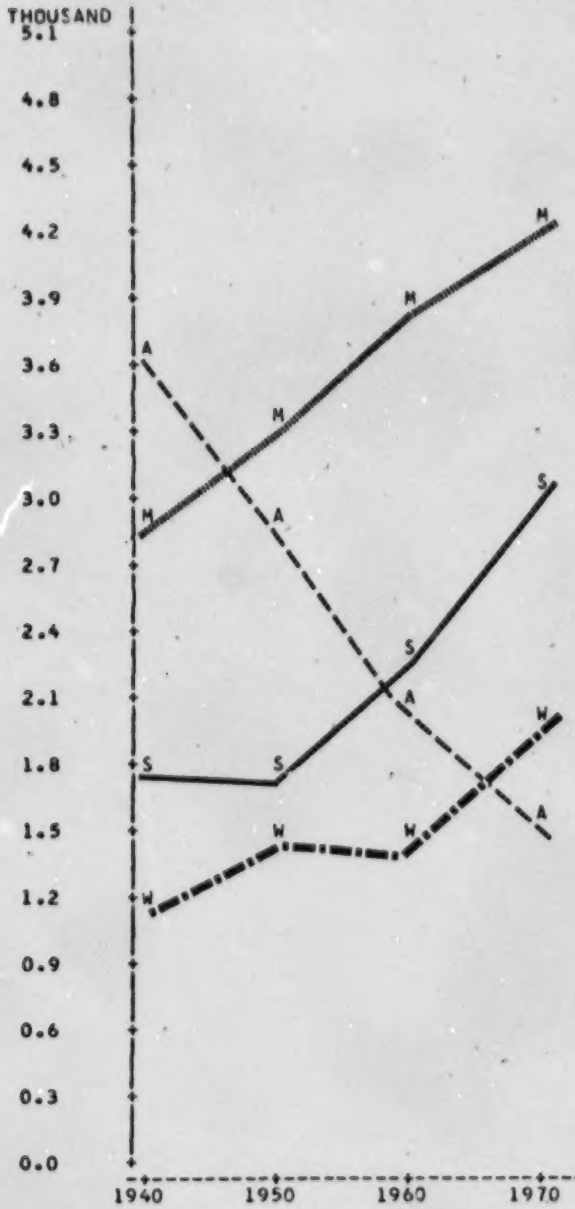
A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
5286	5237	4980	4498	4334	3643	2463	1624	1333
Size of Farm in Acres								
	68	70	72	76	87	112	141	154

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.73	2.77	2.67	2.29	1.85	2.03	1.94
Value Added Per Employee*						
4.35	5.95	5.14	7.36	7.69	10.64	13.28

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
35.7	35.7	35.2	36.2	

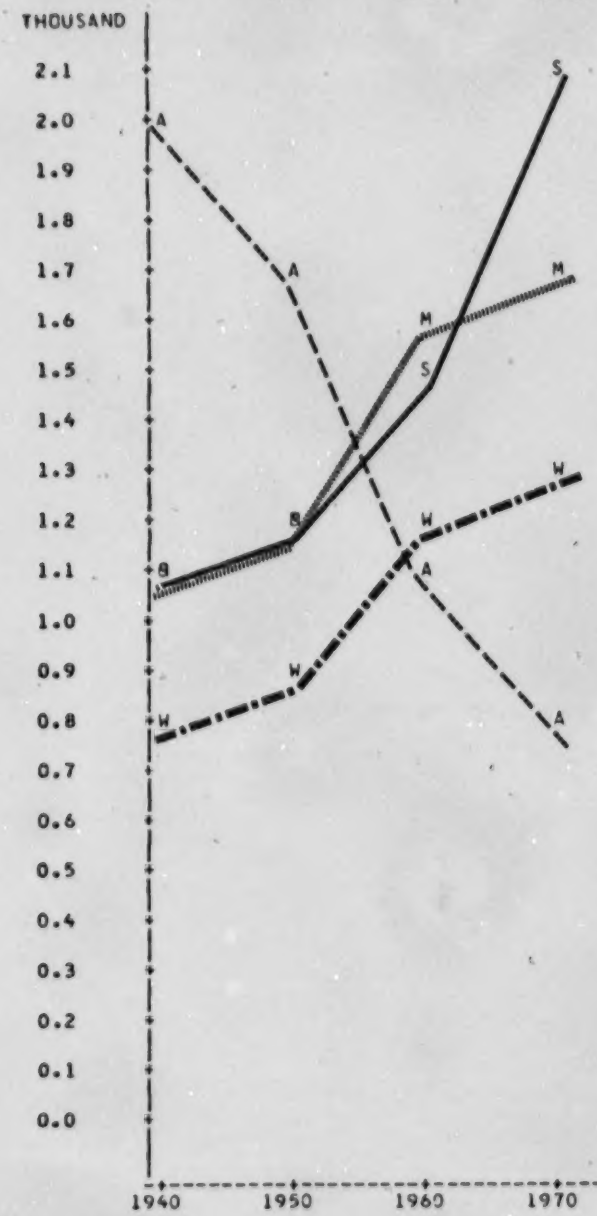


1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
3519	3529	3165	2839	2616	2217	1619	1140	1017
Size of Farm in Acres								
	106	111	117	128	147	178	210	243

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
2.30	3.18	2.76	1.97	1.87	2.17	1.89
Value Added Per Employee*						
3.56	6.44	5.50	6.12	7.28	10.16	10.87

*(in thousands)

1940	1950	1960	1970	1980
Percent of Population Employed				
35.0	35.4	36.8	37.8	



Legend:

A = Agriculture
M = Manufacture
W = Wholesale & Retail Trade
S = Services

1900	1910	1920	1930	1940	1950	1959	1969	1974
Number of Farms								
2504	2288	2041	1739	1548	1183	1020	741	621
Size of Farm in Acres								
89	97	107	115	133	148	169	191	

1919	1929	1939	1947	1954	1963	1972
Value Added Per Payroll Dollar						
3.69	1.88	2.00	1.53	1.44	2.13	1.95
Value Added Per Employee*						
5.23	3.59	3.69	4.57	5.54	8.36	10.26

*(in thousands)